

**A Preliminary Final Report of the
Pilot Reading Project Conducted at 3 AVTS's
in the Eastern Region
of Pennsylvania**

**Chester P. Wichowski
Project Director**

**David C. Garnes
Research Associate**

July 3, 2003

Table of Contents

Summary i

Introduction 1

- Need for the Project 1
- Description of the Project 1

SECTION 1 - OBSERVATIONS AND FINDINGS: SCHOOL 1

- Background3
- Helping Conferences 3
 1. Reading Strategies Teachers Introduced and Implemented4
 2. Teacher Implementation of Reading Strategies Through Lesson Delivery, Student Assignments, and Content Integration 5
 3. Student Reactions to Reading Strategies During Theory Sessions or Homework Assignments 9
 4. Teacher Feedback on Implementing Reading Strategies 10
 5. Teacher Success with Reciprocal Teaching, Scaffolding, and Journaling Strategies 11
 - Reciprocal Teaching Success 11
 - Scaffolding Success 12
 - Journaling Success 13
 6. Use of the Reading Strategies in Student Discussion/ Classroom Interaction, Student Question Generation, Student Journaling and Writing15
 7. Specific Pedagogical Problems Teachers Encountered During the Implementation of Reading Strategies and Discussed During Helping Conferences 20
 - Reciprocal Teaching Pedagogical Problem Areas20
 - Scaffolding the Reading Instruction Pedagogical Problem Areas 21
 - Journaling Pedagogical Problem Areas 22
 8. Modifications of Reading Strategies Developed and Implemented at this Site 23
 9. Additional Weekly Comments from Helping Conferences at this Site 23

SECTION 2 - OBSERVATIONS AND FINDINGS: SCHOOL 2

- Background28
- Helping Conferences 28

- 1. Reading Strategies Teachers Introduced and Implemented 29
- 2. Teacher Implementation of Reading Strategies Through Lesson Delivery, Student Assignments, and Content Integration 30
- 3. Student Reactions to Reading Strategies During Theory Sessions or Homework Assignments 33
- 4. Teacher Feedback on Implementing Reading Strategies 34
- 5. Teacher Success with Reciprocal Teaching, Scaffolding, and Journaling Strategies35
 - Reciprocal Teaching Success 35
 - Scaffolding Success 36
 - Journaling Success 37
- 6. Use of the Reading Strategies in Student Discussion/ Classroom Interaction, Student Question Generation, Student Journaling and Writing 39
- 7. Specific Pedagogical Problems Teachers Encountered During the Implementation of Reading Strategies and Discussed During Helping Conferences 39
 - Reciprocal Teaching Pedagogical Problem Areas 39
 - Scaffolding the Reading Instruction Pedagogical Problem Areas 40
 - Journaling Pedagogical Problem Areas 40
- 8. Modifications of Reading Strategies Developed and Implemented at this Site 41
- 9. Additional Weekly Comments from Helping Conferences at this Site 42

SECTION 3 - OBSERVATIONS AND FINDINGS: SCHOOL 3

- Background 45
- Helping Conferences 45
- 1. Reading Strategies Teachers Introduced and Implemented 46
- 2. Teacher Implementation of Reading Strategies Through Lesson Delivery, Student Assignments, and Content

Integration47
3. Student Reactions to Reading Strategies During Theory Sessions or Homework Assignments49
4. Teacher Feedback on Implementing Reading Strategies	49
5. Teacher Success with Reciprocal Teaching, Scaffolding, and Journaling Strategies50
• <input type="checkbox"/> Reciprocal Teaching Success50
• <input type="checkbox"/> Scaffolding Success51
• <input type="checkbox"/> Journaling Success51
6. Use of the Reading Strategies in Student Discussion/Classroom Interaction, Student Question Generation, Student Journaling and Writing52
7. Specific Pedagogical Problems Teachers Encountered During the Implementation of Reading Strategies and Discussed During Helping Conferences	53
8. Modifications of Reading Strategies Developed and Implemented at this Site	54
9. Additional Weekly Comments from Helping Conferences at this Site	55

SECTION 4 - END OF PROJECT TEACHER SURVEY

Temple University Reading Project

Part 1: Reading Project56	Part
2: The Helping Conference Visitation Project	57	
Appendices		

SUMMARY

Reading is central to learning and contributes to varying levels of success in school as well as in the workplace. Despite the importance of this skill, reading ability levels are alarmingly low. According to the results from the 1998 National Assessment of Educational Progress, NAEP reading levels of all high school age students were also alarmingly low. In other recent studies focusing on career and technical education secondary students it was reported that only about 50% of white 17 years old and fewer than 20% of African-American students are able to read and understand complex information (Bottoms, 2001).

The ability to read well also has great impact on employability and the economy. According to the National Institute for Literacy, unemployment rates among individuals with very low literacy rates were 4 to 7 times higher than among individuals in the labor force with high literacy rates, i.e., approximately 23% or about 44 million of the 191 million adults in the country demonstrate very low levels of literacy (Sims, 1999).

Although there were modest overall gains in the 2001 PSSA reading scores, more work needs to be done in regard to improving the reading ability as well as the attitude toward reading in secondary career and technical schools. According to 2001 PSSA 11th grade career and technical data, 61% of the students indicated that they sometimes or rarely consider the purpose of reading, and 70% sometimes or rarely think about questions a teacher might ask about a reading section. Clearly, the attitude toward reading, the ability to read, and the application of reading in the workplace is critical and schools must play a leading role in creating interventions that will increase reading ability.

The Reading Project took place during the 2002-2003 academic year as a pilot research and development effort funded by the Pennsylvania Department of Education, Bureau of Career and Technical Education employing the systematic delivery of 3 reading strategies to 15 Career and Technical Education teachers in 3 AVTS 's in the eastern region of Pennsylvania. These strategies included reciprocal teaching, scaffolding, and journaling.

Each of the 3 strategies were delivered through a 2 hour in-service teacher education session followed by approximately 6 weeks of supported individual and small group helping conferences. The delivery of helping conference to support the teacher application of the reading strategy following the in-serve teacher education session was considered as a critical element for the success of this project. The occupational subjects taught by the participating teachers included Automotive Body Repair, Automotive Technology, Biotechnology, Computer Information Technology, Cosmetology, Health Occupations Technology, Health Related Technology, Plumbing/HVAC, and Welding. Overall, 438 tenth, eleventh and twelfth grade students received occupational education content instruction using the reading strategies delivered through the project. Furthermore, a reading level analysis was conducted on the class texts used by the teachers participating in this project.

Quantitative and qualitative data were collected to determine the successful elements of the reading strategies and other information related to the conduct of the project through a review of weekly helping conference logs, teacher interviews, and an end of project teacher survey. Selected findings include:

1. 1. students are adopting new reading techniques delivered through the project which include predicting, questioning, clarifying, knowledge chunking, outlining, think-pair-share, scanning to locate key information, and student reflection.
- 1.2. students are participating more in class discussion, are asking more questions, have a more enhanced vocabulary, are following instructions better, are having greater content related dialog among students, and are displaying a greater comprehension of material studied.
1. 3. students developed their own vocabulary games by adopting a variation of Post-it note reading strategies.
1. 4. students are self monitoring their reading strategies and are suggesting ways to learn more content.

5. there has been between an 8% and a 20% increase in student scores on teacher made tests.
6. 6. the pass rate of students on publisher made tests has increased to 95% when compared to a pass rate of 40% in previous years on difficult unit tests.
6. 7. the use of different reading strategies contributes to the needs of a wide range of learning styles.
6. 8. reading gains were also noted in students with IEPs.

A comparison of PSSA Reading Scores of the 133 juniors who received occupational content instruction based on the three reading strategies (experimental group) in each of the three participating sites will be made with the reading scores of a matched group of students who did not receive occupational content instruction based on the three reading strategies (control group) when these scores are available early in the Fall of 2003.

INTRODUCTION

Need for the Project

Reading is central to learning and contributes to varying levels of success in school as well as in the workplace. Despite the importance of this skill, reading ability levels are alarmingly low. According to the results from the 1998 National Assessment of Educational Progress, NAEP reading levels of all high school age students were also alarmingly low. In other recent studies focusing on career and technical education secondary students it was reported that only about 50% of white 17 year olds and fewer than 20% of African-American students are able to read and understand complex information (Bottoms, 2001).

The ability to read well also has great impact on employability and the economy. According to the National Institute for Literacy, unemployment rates among individuals with very low literacy rates were 4 to 7 times higher than among individuals in the labor force with high literacy rates, i.e., approximately 23% or about 44 million of the 191 million adults in the country demonstrate very low levels of literacy (Sims, 1999).

Although there were modest overall gains in the 2001 PSSA reading scores, more work needs to be done in regard to improving the reading ability as well as the attitude toward reading in secondary career and technical schools. According to 2001 PSSA 11th grade career and technical data, 61% of the students indicated that they sometimes or rarely consider the purpose of reading, and 70% sometimes or rarely think about questions a teacher might ask about a reading section. Clearly, the attitude toward reading, the ability to read, and the application of reading in the workplace is critical and schools must play a leading role in creating interventions that will increase reading ability.

Description of the Project

The Reading Project took place during the 2002-2003 academic year as a pilot research and development effort funded by the Pennsylvania Department of Education, Bureau of Career and Technical Education. In operation, the project systematically delivered 3 reading strategies to 15 Career and Technical Education teachers in 3 AVTS 's in the eastern region of Pennsylvania. To maintain confidentiality, the names of the participating schools will not be reported. Instead, each school will be referred to as school 1, school, 2 and school 3.

School 1 is a share time facility located in a suburban setting serving 9 school districts with a 2003-03 enrollment of 869 students and a faculty of 26. There are 22 vocational subjects offered. School 2 is a share time facility located in a suburban setting serving 5 school districts with a 2002-03 enrollment of 1,090 students and a faculty of 45. There are 20 vocational subjects offered. School 3 is a comprehensive facility located in an urban setting with a 2002-03 enrollment of 450 students and a faculty of 26. There are 22 vocational subjects offered.

The reading strategies delivered during the project included reciprocal teaching, scaffolding, and journaling. Each of the three strategies were delivered through a two hour in-service teacher education session followed by approximately six weeks of supported individual and small group helping conferences. There were a total 263 scheduled helping conferences delivered during 92 site visitation days distributed among the three participating sites throughout the duration of the project. The delivery of helping conference to support the teacher application of the reading strategy following the in-serve teacher education session was considered as a critical element for the success of this project. The occupational subjects taught by the participating teachers included Automotive Body Repair, Automotive Technology, Biotechnology, Computer Information Technology, Cosmetology, Health Occupations Technology, Health Related Technology, Plumbing/HVAC, and Welding.

All reading strategy workshops conducted utilized the subject matter texts used by the teachers participating in the project in order to support the concept of reading in the content area. A reading level analysis was conducted on class texts, and supplemental reading materials used by teachers participating in the project using the Flesch-Kincaid grade level score procedure. The average Flesch-Kincaid grade level score for the 13 texts and three supplemental reading packets analyzed from the three participating sites was 8.6, the range was between 3.7 and 12.2. Also computed on the same reading materials was the Flesch Reading Ease Score. The average Flesch Reading Ease Score for the 13 texts and three supplemental reading resource packets analyzed from the three participating sites was 56.3 the range was between 40.9 and 60.1. A Flesch Reading Ease Score of 60.1 is considered at the 9th grade level and a score of 40.9 is considered at the college level.

Overall, 438 tenth, eleventh and twelfth grade students received occupational education content instruction using the reading strategies delivered through the project. A total of 15 teachers participated in the project. Due to an unanticipated early retirement and a sabbatical, 13 teachers fully participated in the project. Due to this, the PSSA scores of the eleventh students of the teachers who left the project early will not be included in the experimental group.

Quantitative and qualitative data were collected to determine the successful elements of the reading strategies and other information related to the conduct of the project through a review of weekly helping conference logs, teacher interviews, and an end of project teacher survey. A comparison of PSSA Reading Scores of the 133 juniors who received occupational content instruction based on the three reading strategies (experimental group) in each of the three participating sites will be made with the reading scores of a matched group of students who did not receive occupational content instruction based on the three reading strategies (control group) when these scores are available early in the Fall of 2003. Observations and findings from each participating school will be reported separately.

SECTION 1

OBSERVATIONS AND FINDINGS: SCHOOL 1

Background

School 1 is a share time facility located in a suburban setting serving nine school districts with a 2003-03 enrollment of 869 students and a faculty of 26. There are 22 vocational subjects offered. Six teachers were involved with the pilot study at this site. The student population exposed to the various reading strategy treatments included 220 students, of which 66 students were juniors. The junior class of students was identified as the experimental group in this study.

Vocational/Technical Career Areas where the pilot study was conducted included: Welding Technology, Computer Information Technology, Cosmetology, Plumbing/HVAC, Health Occupations and Health Sciences.

The Pilot Study concentrated on teacher delivery and student exposure to reading strategy skills in three focus areas: Reciprocal Teaching, Scaffolding Instruction, and Journaling. A major goal of this study was to investigate if using the specific reading strategies of Reciprocal Teaching, Scaffolding Instruction, and Journaling would increase the comprehension levels of vocational-technical students when delivered within the content area classroom. Pilot study teachers at this site were instructed in one of the strategy areas at three separate workshop sessions lasting two-hours each. Each workshop session was structured by discussing the reading strategy pedagogy within the framework of before-reading activities, during reading activities, and after reading activities. Workshop training was conducted at approximately seven-week intervals during the pilot study at this site.

Workshop training was delivered to the entire pilot study faculty as follows: Reciprocal Teaching-October 16, 2002, Scaffolding Instruction-December 4, 2002, Journaling-February 5, 2003. At each 2 hour workshop teachers were encouraged to pick and choose those reading strategies which they felt they were most comfortable with, and confident in using by infusing that strategy into their content area reading theory lesson instruction. A total of 19 different reading strategies were presented to the teachers during the pilot study workshops.

Helping Conferences

Helping conferences were conducted with participating teachers in order to facilitate the application of workshop content in the classroom. Weekly helping conferences were scheduled and held individually with teachers at this site beginning October 28, 2002. The helping conferences were held each week at a scheduled time when the teacher was available. On several occasions, due to school holidays or teacher absence from school, some helping conference meetings were held after a two-week instructional time-span had lapsed. At no time during the study were helping conferences delayed by more than a two-week time span. Several classroom observations of theory lesson instruction were conducted with the permission of the instructor to aid in implementing the reading strategies specifically into Welding and Plumbing/HVAC vocational curriculum.

During the helping conference session, teachers were asked to respond to the following areas as

reported below. It is important to note that responses recorded in individual helping conference site reports and written with the purpose of keeping a record concerning how the reading strategies were implemented concentrated on the following areas:

1. Reading strategies teachers introduced and implemented.
2. 2. Teacher implementation of reading strategies through lesson delivery, student assignments, and content integration.
3. Student reactions to reading strategies during theory sessions or homework assignments.
4. Teacher, feedback on implementing reading strategies.
5. 5. Teacher success with Reciprocal Teaching, Scaffolding Instruction, and/or Journaling.
5. 6. Use of reading strategies in student discussion/classroom interaction, student question generation, student journaling and writing.
5. 7. Specific pedagogical problems teachers encountered during the implementation of reading strategies and discussed during helping conferences.
8. Modifications of reading strategies developed and implemented at this site.
9. Additional weekly comments from helping conferences at this site.

Each one of these 9 helping conference discussion categories will be used as an organizer to report activities and findings at this site. Please note, the date after each statement in the following sections provides a chronology teacher reported information in the helping conference site report.

1. Reading Strategies Teachers Introduced and Implemented

Pilot study teachers at this site were instructed in one of the strategy areas at three separate workshop sessions lasting two-hours each. Each workshop session was structured by discussing the reading strategy pedagogy within the framework of before-reading activities, during reading activities, and after reading activities. Workshop training was conducted at approximately seven-week intervals during the pilot study at this site. Reading strategies introduced were:

- 1.1 Reciprocal Teaching: Predict, Clarify, Question, and Summarize.
- 1.2 Scaffolding Instruction: Post-it note (Visual Marker) Strategies for vocabulary, questioning and comprehension building, K-W-L scaffolding, Key Question & Question Stemming, Note-taking, Think Aloud Strategy, Directed Reading/Teaching Activity, The Last Word Summaries.

1.3 Journaling: Prediction Journals, Write to Learn Summaries, Prediction/ Reflection Journal, Process Logs. Writing Review Questions, Outlining of Reading Passages, Teacher designed journals.

2. Teacher Implementation of Reading Strategies Through Lesson Delivery, Student Assignments, and Content Integration

2.1 Visual orientation used with vocabulary instruction. Write the word, define the word, decode the word, clarify, apply to text/real life. Success with vocabulary and relating real-world word meanings to technical vocabulary and its meanings (11/11). Teacher likes this Vocabulary Review Process, but it is a new procedure and it will take the teacher several times of repetitive use before he will feel comfortable in using think aloud scaffolding as a regular reading review strategy in the class (1/06).

2.2 Vocabulary lessons were designed to be visual and contextual, the students do ask related questions when combining visual models of a term with text passage: Examples: What is brittleness? Is copper brittle? Is copper more or less brittle than stainless steel? Is copper more ductile than stainless steel? What does the word ductile mean? How is the word ductile different from the word brittle? (11/18)

2.3 Classroom demonstration used with Vocabulary Instruction. The teacher gave the students a list of vocabulary words from the current chapter of the welding unit and asked students to review the term, and apply how the terms was significant to the welding process. Class discussion centered on the Think Aloud Approach, generation of discussion and use of key questions (student-developed) for a class summary (12/09)

2.4 Students were using the Post-it notes to mark main ideas. The students focused on location of specific information within the text. This unit had a lot of acronyms such as ABS, PVC, CPVC, PE, and PEX so, the teacher covered each term very carefully and then has the student write on the Post-it note: the term, term definition, and one fact from the reading about the term, the teacher may also ask for the location within the text where the student found the fact reported during discussion review (12/16).

2.5 Reciprocal Teaching to increase student dialogue and discussion of technical vocabulary terms. (11/11) Suggestions to this process included:

Have students discuss like/similarities, or dislikes/differences to the vocabulary-differences between acetylene and oxygen for example. Dialogue seemed to greatly increase among peers as students added to the knowledge base.

Have students write their own review question about the term after discussion on it.

Use the student's questions as part of the lesson summary process, incorporating their questions to the class for further review of the vocabulary term.

Class discussion centered on the generation of key questions (student-developed) for a class summary (11/18).

2.6 Reciprocal Teaching to increase student comprehension of text main ideas and location of troublesome vocabulary.

Students were given a short reading session and asked to find main ideas of the readings and then discussed what they found after a silent reading session (11/25).

Students were given a vocabulary term in the theory session and asked to locate its definition by page and paragraph then summarize in their own words what the term meant and share this with the class. In a second theory session, students continued with a pairing strategy to complete an outlines on the reading (11/18).

They also are learning how to scan and skim for information. They are learning the organizational structure of topic sentence and locating topic sentence within a paragraph. Students are also learning how to summarize main ideas and processes (12/16). Think-pair-share increases her student's long-term retention of specific cosmetology procedures. Students are also using K-W-L, Key Questions, and Pre-reading prediction from the Reciprocal Teaching strategy (3/24).

2.7 Teaching reading comprehension skill development through the Use of Graphic Markers, Post-it Notes

Teachers at this site reported using the Post-it note markers as one of the best delivery techniques to enhance reading comprehension levels. The graphic markers or Post-it notes were used in a variety of sizes for the delivery of instruction in:

Location of main idea

Location of supportive details

Location of troublesome vocabulary

Location of a reading passage selection whereby clarification is needed

Student generation of a question about complex text content

Writing summaries of the text passage

Prefix- root word-suffix vocabulary learning and drill exercises

Note taking of processes

Think Aloud Strategy Instruction

Retelling of a process or sequence of a process

Marking key ideas of a text passage

Question-pair share exercises

Teacher organizational delivery of instruction during a theory lesson

Review exercises of concepts in test preparation sessions

Adaptation of individual student learning style (tactile, visual, kinesthetic)

Marking key points of the text passage

Marking sections for note taking

Making an outline for writing a summary

Students liked using the Post-it note strategy especially when they were not allowed to write in the textbook. The students talked more about the reading assignments and discuss concepts in more depth and detail (12/09). Teacher indicated that students liked using the Post-it notes during and after the reading process. She had the students focus on key vocabulary, and develop questions for review from the readings. She now takes the Post-it notes and uses them in concept mapping assignments for specific procedures used in her career field (1/27). Post-it notes taken from the side of the black board and placed on the front board for visual review and became the centering of a question stemming activity (2/03). Students are using the Post-it notes without having been told to do so, thus showing evidence of internalization of self-monitoring reading strategy (3/10).

- 2.8 Teaching reading comprehension skill development based upon student's prior knowledge. Teachers had to re-adjust teaching because of students not having the prior knowledge as a foundation upon which to build the lesson. In one case, the teacher was teaching electronic check payment systems, but the class did not know the process of paper check payment, so the teacher had to stop and explain paper checks then proceed with the readings. In one unit there is such a great amount of material for discussion in the area of culture and cultural differences, which in turn evoke a lot of student questions.

The number of questions that students were asking has increased and the group talks more to each other. The class must be careful to stay on track with the discussion; it can easily get off topic (11/03, 11/11). Teachers commented that the students like being read to especially in understanding complex reading passages. Teacher read one oral reading passage a day to the class, then the students completed a KWL scaffold through a think-pair-share setting, then a group

discussion takes place (2/24).

- 2.9 Teaching reading comprehension skill development through the use of student questioning. Classroom observation focused upon the use of question stems to review the welding terms including: Bead, Bevel Angle, Butt Joint, Corner Joint, Cover Pass, Edge Joint, Edge Preparation. The teacher had the students write their own review questions such as:

What is a bead?

What are different types of Bevel Angles?

How is a cover joint different from a Corner Joint?

What is a fillet joint?

Why prepare an edge for the welding process?

What are some ways to prepare an edge for the welding process?

Questions were collected at the beginning of class and posted on the black board. The teacher's use of questioning on each term had the students explain each term and review the concept presented. After the list of terms was completed, the students were each given a Post-it note with a question on it for the review section of the class. Students read the question (written by another student in the class) and then orally summarized an answer to that question. The teacher facilitated the process by having students reread the text to clarify information not summarized by the student, or to make corrections in the summary. At the end of the class the teacher used Post-it notes to list each individual term and posted the term on the blackboard as a starting place for the lesson tomorrow (1/13).

A teacher collected the student questions and compiled a review worksheet using the student-generated questions. Plus, this teacher added a few more challenging questions of her own design. The next day after distributing the worksheets for completion in class, some students recognized the teacher-designed questions and asked who in the class wrote such hard questions. Statements like: "Who wrote that question?" began to surface. Authorship of the question was clearly the issue.

The teacher said nothing about her role in writing the hard questions, but on the third day when another round of student questions was collected, the teacher found higher level questions being written and submitted by the class. Now, the students believe that someone in the class is trying to "trip them, or stump them" on a specific reading question. In answer to the perceived challenges from unknown author who the class thinks is a student, the teacher found that her students began to write higher-level, more difficult review questions. The perception by the part of the students has, unknown to them, increased coverage of material and fostered

high-level questioning advancing from fact to inference levels. (1/27)

3. **3. Student Reactions to Reading Strategies During Theory Sessions or Homework Assignments**

- 3.1 Students very tentative with the newness of the technique. (10/28)
- 3.2 Student expectations initially were one of not having to interact with the teacher, but the teacher waited for responses and students started to talk and dialogue with the teacher. (10/28)
- 3.3 Predicting exercises get the students involved, they asked a lot of questions about the reading in the pre-reading stages. (11/04)
- 3.4 The number of questions that students asked are increasing and the group talks more to each other. (11/11)
- 3.5 Students are marking the main ideas with Post-it notes and identifying the vocabulary with Post-it notes. (11/18)
- 3.6 Students are learning the RT process, they are predicting, questioning and clarifying more. (11/25)
- 3.7 The students talked more about the reading assignments and discuss concepts in more depth and detail. (12/16)
- 3.8 The Think Aloud Strategy is creating more dialogue among the students. (1/13)
- 3.9 Students liked using the journaling worksheet; they were receptive. Students read their own questions they created about the reading, and then the class responded with answers. This activity reinforced concepts some students found as troublesome in the readings. (3/03)
- 3.10 Students have used the Post-it notes before. They liked the knowledge chunking, outlining, think-pair-share strategies. (3/10)
- 3.11 Students were more comfortable with the Post-it note process and vocabulary retention. The Post-it notes are used for questioning, and writing summaries of the vocabulary terms discussed during the lesson. (3/10)
- 3.12 Students were using the Post-it notes without having been told to do so, thus showing evidence of internalization of self-monitoring reading strategy. (3/10)
- 3.13 Students were self-monitoring their reading strategies and suggesting ways which they can learn reading content. (3/24)

4. Teacher Feedback on Implementing Reading Strategies

- 4.1 The teaching of Reciprocal Teaching Techniques was new in the approach to teacher delivery and lesson structure in the classroom. (10/28)
- 4.2 The reciprocal teaching strategy increased the amount of discussion between teacher and student from the very start. (10/28)
- 4.3 Teacher was surprised by the immediate involvement of the kids, all students take turns and contribute. (10/28)
- 4.4 Using the RT strategy to enhance vocabulary development, he shared a paper that he uses to teach new vocabulary terms to his classes: Write the word, define the word, decode the word, clarify, and apply to text/real life. (11/2)
- 4.5 Teacher observed that students needed a reading guide sheet, so one was developed and distributed the reading guide to all the students in her class. (11/18)
- 4.6 The students talk more about the reading assignments and discuss concepts in more depth and detail. (12/09)
- 4.7 The quiz scores on the last unit were good and teacher saw an increase in student test scores on his/her own developed tests. (12/16)
- 4.8 Overall class performance was also being shown by an increase in grades. Students worked a lot in class on locating main ideas, vocabulary and taking assessments from the publisher out of workbooks. The workbook assessments cover information taken from the textbook readings. Special needs populations were also exhibiting increased grades due to the reading pilot study strategies. (1/27)
- 4.9 Teacher reported that the last quiz grade increased as scores for the overall class has increased. (3/10)
- 4.10 Teacher reported positive testing results from students. Most students scored in the 80% range for the test. Think-pair-share increases the student's long-term retention of specific procedures. Teacher is also using K-W-L, Key Questions, and Pre-reading Journal designed by another pilot study teacher. (3/10)
- 4.11 Teacher is noting that the pace of instruction has slowed when using the reading strategies, but that the increased retention and comprehension is worth the trade off in time. Increased retention of knowledge as reflected in the teacher-designed tests. (3/30)
- 4.12 Teacher knows the students are increasing their retention by the dialogue and conversations he has with each student during the lab session. (3/24)
- 4.13 This year, after using the pilot study reading strategies and journaling, the students

increased their score grade levels to 70% and 80% correct on a testing assessment. (4/07)

5. Teacher Success with Reciprocal Teaching, Scaffolding, and Journaling Strategies

5A. Reciprocal Teaching Success

- 5.1.a Early success was noted with vocabulary and relating real-world word meanings to technical vocabulary and its meanings, using some of the RT Strategies. (10/28)
- 5.2.a Success with student reactions and the positive reception with which the strategy was received by the students.(10/28)
- 5.3.a Teacher was especially impressed with the increased dialogue between students. (11/02)
- 5.4.a Students were using the Post-it note strategy, and scaffolding with highlighting the text-student purchase their own books in this class. (11/11)
- 5.5.a. Students were using the Post-it notes to locate key ideas, and vocabulary. (11/18)
- 5.6.a Students were starting to question and asking each other questions about the material and vocabulary terms. (11/18)
- 5.7.a. Students were learning to locate key information and main ideas from their readings. They were also learning how to scan and skim for information, the organizational structure of topic sentence and locating topic sentence within a paragraph. (11/18)
- 5.8.a. Classes were becoming more student-centered in direction and dialogue with the teacher being a facilitator of directing instruction to major concepts and the students supplying major sub points of the lesson from recall of the readings. (1/27)
- 5.9.a Teacher reported that reading progress is improving across all levels. The good students are becoming better at reading and learning the reading material. The remedial students are also improving. (3/03)

5 B. Scaffolding Success

- 5.1.b Post-it note visual markers for vocabulary identification and key questioning are very effective, “The kids love it, they love to talk and interact about what they read.” (11/04)

- 5.2.b Students liked the Post-it note strategy. (11/18)
- 5.3.b Students liked using the Post-it note strategy especially since they are not allowed to write in the textbook. (12/16)
- 5.4.b The students were using the Think Aloud Strategy in their readings and review of the unit's vocabulary. (12/16)
- 5.5.b Students were starting to question and ask each other questions about the material and vocabulary terms. Students reviewed by asking each other review questions and are asking higher level thinking questions. (12/16)
- 5.6.b Teachers were using the Think Aloud Strategy as a review technique. (1/06)
- 5.7.b The Think Aloud Strategy brings a visual orientation to students who are visual learners and facilitates the act of reading information and contributes to retention. (1/6)
- 5.8.b Some advanced students find the Post-it note and K-W-L procedure redundant. The lower level students are in need of the structure the scaffolding process provides and they like using the Post-it note strategies for vocabulary, main idea location, question generation and outlining a process. (1/13)
- 5.9.b Teacher notes the question stemming and the think aloud process were great scaffolds for retention of a process. (1/13)
- 5.10.b The lower level students were in need of the structure the scaffolding process provides and they like using the Post-it note strategies for vocabulary, main idea location, question generation and outlining a process. (1/13)
- 5.11.b Students read the question (written by another student in the class) and then orally summarized an answer to that question. (1/13)
- 5.12.b The asking of higher level questioning skills was significant because whenever educators can move students to ask the higher order questions, comprehension is increased. (1/27)
- 5.13.b Teacher feels that students can see a visual strategy to the reading scaffolding used in the pilot study. (2/03)

- 5.14.b Teacher liked the way the Post-it note strategy structures student dialogue when conducting oral review of the readings. The Post-it note strategy brings to the discussion a framework or structure from which learning is focused and can be raised to even higher levels of comprehension by having the students verbalize and write summaries of information they have discussed. (2/03)
- 5.15.b Students like using the post- it notes. It helps organize instruction in a methodological approach - before - during - and after reading. (2/10)
- 5.16.b Students using the scaffolds were reading more material. They could read longer passages and were reading more frequently. (2/10)

5 C. Journaling Success

- 5.1.c Students were writing a content summary journal with the focus of being able to summarize within a two-paragraph structure. (12/16)
- 5.2.c Teacher was using the Key Questions Scaffold Stems and K-W-L Scaffold in the journaling. She was concentrating on student-developed questions for use in reviewing reading selections. (1/27)
- 5.3.c This was an excellent theory class today because it brought to the forefront student prior knowledge, student dialogue, and student writing about the vocabulary and passages being taught. An active learning approach to the reading, utilizing RT, Scaffolding and Journaling in combination. (2/3)
- 5.4.c The use of The Last Word Journal allowed for better organization and sequence structure of the lesson. (2/24)
- 5.5.c The journaling strategy allowed student to predict and clarify text questions. (2/24)
- 5.6.c Teacher was infusing all three strategies into one theory lesson RT, Scaffolding, and Journaling. (2/24)
- 5.7.c Journaling was also used for summarizing definitions of vocabulary terms using the Post-it note strategy. (3/10)
- 5.8.c. Students were continuing to use the Last Word Journal to summarize content learned during the lesson, and reflection on what they think they did wrong in the process and where to go next to correct their misunderstanding. (3/17)
- 5.9.c Teacher had the student write a journal of their process and lab projects.

Teacher used four key questions seen below:

What we you supposed to do?

What did you do well?

What would you do differently next time?

Do you need any help?

Students responded in their journal by writing responses to these four questions. This type of journal was completed after every lab project. (3/31)

- 5.10.c Students writing in the P/R Journal. They were marking the main ideas with Post-it notes and identifying the vocabulary with Post-it notes. Teacher was happy with the students increase in knowledge and understanding of the material. Some students made a real effort to do a good job on writing the answers to the journal questions, other students did not do as well because they did not put forth the effort. (3/31)
- 5.11.c The students liked writing the P/R Journal because it was easy to complete and they had successful results with comprehending the reading using this journal as a guide. (3/31)
- 5.12.c Teacher reported that students saw the need and importance to preview material and they also individually made comments in their journals, which addressed reading strategies that they can use to improve their reading. Teacher found this journal to be a powerful way to get students to self-diagnose their reading skills in terms of improving their comprehension. (4/07)
- 5.13.c Teacher liked the way in which the P/R Journal was used. It was multi-faced in the lesson design; teacher included: discussion, think-pair-share grouping, written response, oral presentation, and chapter review of the text content. (4/07)
- 5.14.c Journals gave the teacher a great insight into the reading process and reading problems encountered in the student's thinking process. The prediction phase of the journal helped to locate specific difficulties in the text passage, which was addressed before students read the selection. (4/07)

6. Use of the Reading Strategies in Student Discussion/Classroom Interaction, Student Question Generation, Student Journaling and Writing

6.1 Student Questioning and Classroom Dialogue: student reaction and the positive

attitude toward Reciprocal Teaching strategy was noted. (10/28)

Students were starting to question and ask each other questions about the material and vocabulary terms. Students reviewed by asking each other review questions in today's class. Students were questioning about information they have yet to learn in the reading.

Their reading stops and they want to go on with it, continue questioning. (10/28)

Predicting exercises get the students involved, they ask a lot of questions. (11/04)

Also, students were asking higher level thinking questions as shown in the following Student generated question: How does the oxidation resistance affect the welding process? (12/16) The Think Aloud Strategy is spawning more dialogue among the students. (12/16) Students liked using the Post-it note strategy (especially when they are not allowed to write in the textbook). The students talked more about the reading assignments and discuss concepts in more depth and detail. (1/13)

- 6.2. Reciprocal Teaching strategy and student questioning of text passages. There was a great amount of questioning techniques used with Reciprocal Teaching on the part of both teacher and students. Are Students Questioning? Are Students Clarifying? Are Students Predicting. (11/18). Students continued to learn to locate key information and main ideas from their readings. They also learned how to scan and skim for information. They are learning the organizational structure of topic sentence and locating topic sentence within a paragraph. Students are also learning how to summarize main ideas and process. (12/16)
- 6.3. Extensive use of Question Stemming in vocabulary lessons. A lot of signal words and question stemming were being used in the classroom. What? How? When? question stems. Which metal is more brittle____ or ____? How does butt welding differ from lap welding? Use of questioning, signal words, linkage to visual learners with examples of the metal and discussion of metal properties: Impact, Hardness, Shear, Ductility, Brittleness, Toughness, Chemical Properties. (12/9, 12/16)
- 6.4. Extensive use of question stemming in content reading passages. The lower level students were in need of the structure the scaffolding process provides and they liked using the post- it note strategies for vocabulary, main idea location, question generation and outlining a process. Examples of student generated questions from the content reading passages reported by one teacher included:

What are vital signs?

How are vital signs different under a set of circumstances?

Why are vital signs important?

When should vital signs be taken?

Where are vital signs found or located on the human body?

Who should look for a person's vital signs? (12/09)

A lot of signal words and question stemming were also being used. What? How? When? It was observed through the use of question stemming that students were beginning to ask higher-level questions in the review. Questions were moving from mere recall "what is a flange?" to comparison, contrast, and sequence questions such as: What is the difference between a flange and a flare? What is the process to make a groove face? When does the degree matter in welding? The asking of higher level questioning skills is significant because whenever educators can move students to ask the higher order questions, comprehension is increased.

Questions were collected at the beginning of class and posted on the black board. The teacher's use of questioning on each term had the students explain each term and review the concept presented. After the list of terms was completed, the students were each given a Post-it note with a question on it for the review section of the class. Students read a question written by another student in the class and then orally summarized an answer to that question. The teacher facilitated the process by having students reread the text to clarify information not summarized by the student, or to make corrections in the summary.

At the end of the class, the teacher used post- it notes to list each individual term and posted the term on the blackboard as a starting place for the lesson tomorrow. The use of higher level questioning by students was evident in today's class (1/27). The teacher held a unit review session covering 15 concepts in 20 minutes with excellent student recall and application of the term being discussed (2/03).

Classes are becoming more student-centered in direction and dialogue with the teacher being a facilitator of directing instruction to major concepts and the students supplying major sub-points of the lesson from recall of the readings. It was noted at times during the lesson today, that it was difficult to keep the lesson centered on the DWV System, as students were active in asking many questions which were related to plumbing, but not on the center of the reading passage. Examples: What is famine? What is an effluent? Why does a trap lose its seal? Why are traps important in preventing disease? (3/10)

- 6.5. Reading Strategies using Student Journaling and Writing. Summarizing journals are beneficial because it is easy to identify those students who do not complete the readings or those who don't read. Students often included their opinion instead of factual materials found in the readings. (11/18)

Teacher also used the Last Word Journaling Scaffold today and had the students write at the end of class responses to these 3 questions: What did you know about Chapter 3 before we studied it? What did I not know and understand about Chapter3, before we discussed it? What did I learn from Chapter 3? (2/03)

Teacher is infusing several comprehension strategies into theory lessons which included: RT: clarifying, predicting, summarizing, questioning Scaffolding: KWL note taking, post- it note visual markers and Journaling: The Last Word.

Students were working on their career reports project, which included research into the Health Related Occupations. Students were required to investigate entry-level positions, training and education requirements, the career ladder to advancement, professional organizations, and then write a summary concerning their research. This was a semester long research project. (2/24)

- 6.6. Prediction/ Reflection Journals aid in Comprehension building. This journal combined before and after reading questions which encourages comprehension increasing self-monitoring strategies including: prediction of text, enacting prior knowledge, Key questioning strategy, Scaffolding K-W-L, summarizing, and application to real world experiences. All teachers at the School 1 used this journaling technique for a period of three weeks and found success in improving student summary writing of text readings and trade articles.

Teacher liked the use of the P/R Journal. It is multi-faced in the lesson design; he included: discussion, think-pair-share grouping, written response, oral presentation, and chapter review of the text content. Teacher reported that this journal gives a great insight into the reading process and reading problems encountered in the student's thinking process. The prediction phase of the journal helped locate specific difficulty areas in the text passage which could be addressed before students read the selection. The use of writing prediction questions and discussing helped alert the entire class to troublesome or problematic textual content, or unfamiliar vocabulary.

Teacher felt that the younger students (sophomores in the class) were easier to mold and more agreeable to completing this lesson. They were more accepting of the lesson design and the assignment. The teacher indicated that he would begin the next school year with integration of the P/R Journal and establish the start of the semester with guidelines for its use. (4/07)

Students have begun their portfolio work and are starting to be challenged by the writing assignments. This is good because it forces the student to ask questions in completion of the written requirements in the portfolio. The written requirements include as resume, cover letter, and thank-you letter to a prospective employer. Also, some students are now seeking the help of the English teacher at their home school for guidance on these portfolios writing assignments, thus allowing greater integration. (1/27)

One teacher stated that in some ways she has underestimated the reading capability of her students and by using question #5 of the P/R journal. She felt that her students are capable of relating information from their prior knowledge and applying it to more technical reading selections of a higher comprehension

level. In her reading classes, sometimes she would gloss over very technical information because of student difficulty in understanding the material. Now, she will not do this, because she uses the scaffolding methods and journal writing activities, which allow for deeper understanding of the reading passage. (3/24)

Teacher reported that students saw the need and importance to preview material and they also individually made comments in their journals, which addressed reading strategies that they can use to improve their reading. Teacher found this journal to be a powerful way to get students to self-diagnose their reading skills in terms of improving their comprehension. (3/24)

6.7 Students were writing in the P/R/Journal. They were marking the main ideas with Post-it notes and identifying the vocabulary with Post-it notes. Teacher was happy with the students increased knowledge and understanding of the material. Some students made a real effort to do a good job on writing the answers to the journal questions; other students did not do as well because they do not put forth the effort. (3/31)

6.8 Students identified the following self-monitoring reading strategies that they used while reading text passages:

Highlighting important areas of the text.

Recognizing and reading definitions of bold faced words.

Re-reading the passage a second time.

Compare what I already know with what I don't and make connections.

Look up unknown vocabulary word meaning using the textbook glossary.

Use another reader to help with the difficult parts of reading the passage.

Use different color high lighters to mark vocabulary and content.

Continued use of Post-it notes to mark unclear reading passages. (3/24)

6.9 Students were self-monitoring their reading strategies and suggesting ways they could learn reading content independently by use of:

Re-reading the text

Making flash cards

Using note cards

Stopping after reading one paragraph and summarizing

Taking notes in an outline

Highlighting material in the textbook

Looking at words in bold print

Writing in the textbook

Looking at illustrations in the reading

Working with questions posed in the text workbook

The above listing are ideas that students recorded in their journals as strategies to improve their own comprehension. (2/24) Students who were using scaffolds were reading more material. They also read longer passages and read more frequently. (2/10)

7. **7. Specific Pedagogical Problems Teachers Encountered During the Implementation of Reading Strategies and Discussed During Helping Conferences**

7 A. Reciprocal Teaching Pedagogical Problem Areas

7.1.a Teachers needed confidence in using the RT strategies and becoming comfortable in using the predicting, clarifying, questioning and summarizing strategies. Teachers reported the need for an orientation period so that they could integrate the RT strategies into practice in their classrooms. RT is a new procedure, and it will take several times of repetitive use before teachers will feel comfortable in using as a regular review strategy in the class. As the pilot study progressed, teachers reported feeling more at ease with the RT techniques.

7.2.a Adapting reading strategies to visual learning styles. Students are visual learners and their learning is often by sight, so the Think Aloud Scaffold brings a visual orientation to the act of reading information and retention. The Think Aloud Scaffold was used before, and after reading in process and sequence instruction of a career-related procedure.

7.3.a Student receptions to learning the theory class reading strategy structure. Students had a fairly positive reception to the reading and journaling activities. However, the juniors in some classes questioned why they had to approach the assignment in the structure established. Teachers reported that some juniors were resistive to this reading/writing instruction. Teachers explained that they were conducting these activities to improve their reading and retention of material, which should increase their chapter test scores and help

eliminate the need for re-testing. In some career areas, an 80% grade on each chapter assessment is required for clock hours to be issued to the student. Once hearing that the strategy should help increase their grades and eliminate the need for re-testing on the chapter, the students agreed to complete the reading activity as per instructed with no additional comments about what why they were being instructed to do a task.

- 7.4.a Modeling and guided practice of RT reading strategy instruction. Students needed a lot of modeling; the interaction time was long. Student expectations initially were one of not having to interact with the teacher, but the teacher waited for responses and students started to talk and dialogue with the teacher. Getting all the students involved in the activity, as there are 21 students in 11th and 12th grade in the afternoon class was initially a problem until question stemming scaffolds and the K-W-L Scaffold helped in this area.

7. B Scaffolding the Reading Instruction Pedagogical Problem Areas

- 7.1.b Teaching students who displayed a wide range of reading levels were a problem. Several teachers raised the question of how to deal with a student who has a 3.5 grade level reading ability—it was suggested to contact the textbook company to see if they have an audio tapes available of the textbook so that the student could play the tape and look at the text at the same time. Upon a later visits, teachers reported that arrangements have been made with the textbook company to have an audio-tape of the book sent to the school for hearing (aural) learners and mildly disabled readers.
- 7.2.b. How to adjust theory instruction pace to compensate for students who finished reading sooner than other students was discussed. What to do with these students is a problem because the students get off task and want to talk to their table partners. It was suggested that having the students write a short two or three sentence summary of their readings would be in order to later share with the class their reactions to the assignment and how the readings apply to real world situations.
- 7.3.b Using scaffolding to reach the independent level in student reading comprehension. More practice on the part of the students was needed to get them to the independent level of using the scaffold. Teachers liked the Think Aloud Scaffold Strategy, but needed to customize this strategy to the reading lesson. Once teachers understood how the Think Aloud Scaffold could be used as review activity, they could integrate the scaffold in summarizing the theory lesson's content, and checking for understanding the material read with the class.
- 7.4.b Independent readers found that the scaffolding strategy redundant. Some advanced, independent reading level students viewed the Post-it note and K-W-L procedures as redundant. Teachers noted that although some of the

advanced students in the class find the scaffolding activities redundant to their reading process, the lower level students are in need of the structure the scaffolding process provides. In working with the independent level reader, it was suggested that teachers begin journaling and writing activities sooner with those readers.

- 7.5.b. Students were generating low-level questions in their writing. Teachers using the Key Questions Scaffold Stems and K-W-L Scaffold in the journaling process at first reported that students would write low level, recall questions in the scaffold. Teachers began to concentrate on student-developed questions for use in reviewing reading selections. At first, student developed review questions were of a very easy level, either fill in the blank, or true/ false, or yes/no. Many students wrote very easy questions on a simple recall level, there were very few—if any application, analysis, or synthesis level questions. Students hesitated in clarifying the need to identify concepts they do not know from the reading passages. Students had a difficult time writing questions about content they do not know. Using the Last Word Journal seemed to work as an appropriate correction to this problem. Using this journal reinforces reading of the assigned work so students can write questions, which serve as a basis for identification of content areas needing further clarification. Also, teachers illustrated to the class appropriate and acceptable questions that students should be generating from the reading passages.

7 C. Journaling Pedagogical Problem Areas

- 7.1.c Journals were lacking in structure, content, organization and/or mechanics. Journal writing is a process. Throughout the journaling span of the pilot study, content area vocational instructors voiced a problem in the student's inability to write summary journals. Students were writing in phrases and single words, and not in complete sentences. Journals needed structure and organization. Students were limited in their written responses. Students were in need of learning how to structure a journal entry. Getting students to write about the reading was a challenge in some classes. Some students write very little, some write a lot. Getting students to write down the main ideas in the summary was a challenge. Some students make a real effort to do a good job on writing the answers to the journal questions; other students do not do as well because they do not put forth the effort. The journaling was a problem for some students who had difficulty determining what is important and not important to include in a summary.

In recognizing the above cite problem areas, throughout the last six weeks of the pilot study, a focus of the journal writing was on organization and content to summarize the main ideas of the reading passage. With careful note taking and writing sample journals, teachers noted that students writing did improve slightly, but much more practice was needed to improve composition skills. Recognizing this, several teachers agreed to

continue with journal writing activities, even though the pilot study was concluded.

- 7.2.c. Student reaction to writing requirements were mixed. Teachers felt that the younger students (sophomores in the class) were easier to mold and more agreeable to complete the writing summaries. The sophomores were more accepting of the lesson design and the assignments. It was pointed out to the teachers that the juniors will become more accepting too, once they use the summary journal several times and get into the habit of reading, writing and presenting to the class.

7. **8. Modifications of Reading Strategies Developed and Implemented at this Site**

The following integration techniques of a specific reading strategy were developed, designed, and /or modified at Site 1 during the pilot study. Each of these techniques are presented as complete documents as developed by the individual teachers in Appendix A.

- 8.1 Strategies for your Reading Success!, Health Occupations/Health Sciences
- 8.2 Process Journal, Welding
- 8.3 Prediction Journal, Cosmetology
- 8.4 Scaffolding the K-W-L Strategy, Cosmetology
- 8.5 Prediction/Reflection Journal with Small Groups, Cosmetology
- 8.6 Question Stem Generation, Computer Technology

9. **Additional Weekly Comments from Helping Conferences at this Site**

- 9.1 Teacher indicated that students buy their own textbook and she encourages them to highlight important information, and also use Post-it notes to mark in the text what is important. Teacher requested Post-it notes with lines on it. Teacher gave a sample vocabulary sheet of terms she will use for the unit. Teacher gave me a unit on Basic Rigging Skills, which provides a small sample of his first week's readings using the RT Strategy. (10/28)
- 9.2 Teacher developed a design of a welding unit and how parts must be labeled. (11/04)
- 9.3 Teacher gave me a student support worksheet of terms. Teacher noted that student's level of respect for her has a great deal to do with the increased dialogue because the afternoon group has had this teacher as the teacher for the past three years and they know her level of vocational experience and respect her for that. (11/11)
- 9.4 Teacher will try the three suggestions made about the vocabulary instruction

process and incorporate it into his class. Teacher noted that although some of the advanced students in the class find the scaffolding activities redundant to their reading process, the lower level students were in need of the structure the scaffolding process provides. 11/18

- 9.5 Students were writing a content summary journal with the focus of being able to summarize within a two-paragraph structure (Teacher's requirements). Teacher views summarizing as more beneficial than outlining because the students are only listing information in an outline, whereas summarizing requires organization, planning and higher order thought processes of composition. Teacher is basically an auditory presenter, but many of his students are visual learners so adaptations can be made for both learning styles to be focused upon during the lesson. (11/25)
- 9.6 Teacher will try the three suggestions made to him about the vocabulary instruction process and incorporate it into his class. These were to: (1) at the end of the lesson, summarize the ideas, (2) have students summarize the definition of a new concept, and (3) have the student generate review questions and answers and then ask each other in the class their self-designed question, as part of the review. (12/09)
- 9.7 Teacher was anxious to see how the Post-it note markers will come into play with comprehension of human anatomy and how this scaffold will result in gains on the Pennsylvania Certification Subtest of Human Anatomy with her seniors. Students will be tested this month on the PA Certification Subtest. (12/09)
- 9.8 Teacher again noted that although some of the advanced students in the class find the scaffolding activities redundant to their reading process, the lower level students are in need of the structure the scaffolding process provides and they liked using the Post-it note strategies for vocabulary, main idea location, question generation and outlining a process. (12/16)
- 9.9 This has been two tough weeks in cosmetology as the semester is ending next week, with outstanding assignments due. Also, last week's classes were constantly being observed by groups of freshmen touring the school from the sending schools. This week should return to more of a normal class structure as teachers are going to be starting new units in instruction. (1/13)
- 9.10 Teacher shared some insights into the pilot study as it is progressing in her classes, which are now nearing the end of the first semester. Critical skills in reading such, as previewing, predicting and summarizing are key in her career area. Teacher felt the question stemming and the think aloud process are great scaffolds for retention of a process. Teacher tried the Cinderella Think Aloud activity with the P.M. class and they created a detailed plot outline in three rounds of Post-it notes with 20 students - two students never heard of the Cinderella story, so they learned the plot as well. Such activities are good for modeling this technique because the think aloud scaffold can be transferred to vocational applications, keys to student success in her class. (1/13)

- 9.11 In the post-reading stage the teacher has the students write questions for summary and oral review of the material. These questions can easily become the base for journaling activities over the readings and extend comprehension into deeper levels of the thinking process by: engaging the students in writing process sequences, explaining comparison and contrast, explaining health and safety issues, and defining key vocabulary concepts. (1/13)
- 9.12 Questions were collected at the beginning of class and posted on the black board. Teacher's use of questioning on each term had the students explain each term and review the concept presented. After the list of terms was completed, the students were each given a Post-it note with a question on it for the review section of the class. Students read the question (written by another student in the class) and then orally summarized an answer to that question. Teacher facilitated the process by having students reread the text to clarify information not summarized by the student, or to make corrections in the summary. At the end of the class, teacher used Post-it notes to list each individual term and posted the term on the blackboard as a starting place for the lesson tomorrow. The use of higher level questioning by students was evident in today's class. (1/27)
- 9.13 After reading a passage on a process, the teacher asked the students to write 2 reading review questions about the text readings. Many students wrote very easy questions on a simple recall level, there very few—if any application, analysis, or synthesis level questions. The teacher collected the student questions and compiled a review worksheet using the student-generated questions. Plus, this teacher added a few questions of a personal design. The next day after distributing the worksheets for completion in class, some students recognized the teacher designed questions and asked who in the class wrote such hard questions. Statement like: “Who wrote that question?” began to surface. Authorship of the question was clearly the issue.

The teacher said nothing about the teacher's role in writing the hard questions, but on the third day when another round of student questions was collected, the teacher found higher level questions being written and submitted by the class. Now, the students believe that someone in the class is trying to “trip them, or stump them” on a specific reading question. In answer to the perceived challenges from unknown author who the class thinks is a student, the teacher found that her students began to write higher-level, more difficult review questions.

The perception by the part of the students has, unknown to them, increased coverage of material and fostered high-level questioning advancing from fact to inference levels. The teacher will continue the experiment to see what questions the students are writing next week. (1/27)

- 9.14 Overall class performance is also being shown by an increase in grades. Students work a lot in class on locating main ideas, vocabulary and taking assessments from the publisher out of workbooks. The workbook assessments cover information taken from the textbook readings. Special needs populations are also seeing an

increase in grades due to the reading pilot study strategy being integrated into her classroom. (1/27)

9.15 Teacher also used the Last Word Journaling Scaffold today and had the students write at the end of class responses to these 3 questions:

1. What did you know about Chapter 3 before we studied it?
2. What did I not know and understand about Chapter 3, before we discussed it?
3. What did I learn from Chapter 3?

This was an excellent theory class because it brought to the forefront student's prior knowledge, student dialogue, and student writing about the vocabulary and passages being taught. The active learning approach used for reading, utilized RT, Scaffolding and Journaling in combination for terrific student comprehension gains.

The teacher liked the way the Post-it note strategy structures student dialogue when conducting oral review of the readings. The Post-it note strategy brings to the discussion a framework or structure from which learning is focused and can be raised to even higher levels of comprehension by having the students verbalize and write summaries of information they have discussed.

The teacher was questioned about seeding the reading worksheet with teacher written questions. The teacher's philosophy now is to discontinue the adding of teacher seeded model questions as the students have learned to write questions of the higher order thinking required to comprehend the text.

The reading strategies are helping the students; she is seeing a positive effect on several of the students who are mainstreamed with IEP's into the class. (2/03)

9.15 Students who are using the scaffolds are reading more material. They can read longer passages and read more frequently. (2/10)

9.16 Teacher will continue with current pilot study strategies this week. The teacher has infused strategies from all three workshops into today's session. The ending of the class was particularly effective in that he combined student key questioning scaffold with the Last Word writing activity and then collected the student work. (2/24)

9.17 Students found that the textbook they were using contained incorrect procedure information when saving frames (page 264-265) of their textbook. Steps 5 and 6 of this process were printed in the wrong order and students were getting frustrated using the book-directed procedure, so two students reversed steps 5 and 6

discovering that the complete procedure of the chapter could be preformed accurately. They problem solved to find an easier way to complete the frames and save them, shared this information with the teacher and the class. The teacher credits reading and careful re-reading of the text, which led to the discovery of this glaring computer processing error. The teacher will contact the publishing company and inform of them of the textbook errors in this chapter. (2/24)

- 9.18 The teacher felt, that on the last test, information discussed in class was not transferring to positive test scores. It was suggested that the teacher employ the key questioning review strategy scaffold for pretest review classes. The teacher liked the idea and will try it this week on the next unit. (3/10)

SECTION 2

OBSERVATIONS AND FINDINGS: SCHOOL 2

Background

School 2 is a share time facility located in a suburban setting serving 5 school districts with a 2002-03 enrollment of 1,090 students and a faculty of 45. There are 20 vocational subjects offered. Four teachers were involved with the pilot study at this site. The student population exposed to the various reading strategy treatments included 125 students, of which 19 students were juniors. The junior class of students was identified as the experimental group in this study. Vocational/Technical Career Areas where the pilot study was conducted included: Automotive Technology, Biotechnology, and Health Occupations Technology.

The Pilot Study concentrated on teacher delivery and student exposure to reading strategy skills in three focus areas: Reciprocal Teaching, Scaffolding Instruction, and Journaling. A major goal of this study was to investigate if using the specific reading strategies of Reciprocal Teaching, Scaffolding Instruction, and Journaling would increase the comprehension levels of vocational-technical students when delivered within the content area classroom. Pilot study teachers at this site were instructed in one of the strategy areas at three separate workshop sessions lasting two-hours each.

Each workshop session was structured by discussing the reading strategy pedagogy within the framework of before-reading activities, during reading activities, and after reading activities. Workshop training was conducted at approximately seven-week intervals during the pilot study at this site. Workshop training was delivered to the entire pilot study faculty as follows: Reciprocal Teaching-October 23, 2002, Scaffolding Instruction-January 8, 2003, Journaling-February 19, 2003. At each workshop, teachers were encouraged to pick and choose those reading strategies which they felt they were most comfortable with, and confident in using by infusing that strategy into their content area reading theory lesson instruction. A total of 19 different reading strategies were presented to the teachers during the pilot study workshops.

Helping Conferences

Helping conferences were conducted with participating teachers in order to facilitate the application of workshop content in the classroom. Weekly helping conferences were then scheduled and held individually with teachers at this site beginning October 30, 2002. The helping conferences were held each week at a scheduled time when the teachers were available and a substitute teacher. On several occasions, due to school holidays, snow cancellations, or teacher absence from school, some helping conference meetings were held after a two-week instructional time-span had lapsed. At no time during the study were helping conferences delayed by more than a two-week time span. Teachers at this site were paired for the helping conference sessions.

Two instructors, Automotive Technology Teachers, were paired for the helping conference sessions. The instructors for Biotechnology and Health Occupations were also paired for the helping conference sessions. Exit reporting from the teachers indicated that the pairing approach

to conducting the helping conference was successful as it allowed for increased dialogue between teachers, sharing of ideas, and discussion concerning how to integrate the specific strategy in a vocational content area.

During the helping conference session, teachers were asked to respond to the following areas as reported below. It is important to note that responses recorded in individual helping conference site reports and written with the purpose of keeping a record concerning how the reading strategies were implemented concentrated on the following areas:

1. 1. Reading strategies teachers introduced and implemented with students.
2. Teacher implementation of reading strategies through lesson delivery, student assignments, and content integration.
3. Student reactions to reading strategies during theory sessions or homework assignments.
4. Teacher feedback on implementing reading strategies.
5. Teacher success with Reciprocal Teaching, Scaffolding Instruction, and/or Journaling.
6. Use of reading strategies in student discussion/classroom interaction, student question generation, student journaling and writing.
7. Specific pedagogical problems teachers encountered during the implementation of reading strategies and discussed during helping conferences.
8. Modifications of reading strategies developed and implemented at this site.
9. Additional weekly comments from helping conferences at this site.

Each one of these 9 helping conference discussion categories will be used as an organizer to report activities and findings at this site. Please note, the date after each statement in the following sections indicates when a teacher reported the idea and was cited in the helping conference site report.

1. 1. **Reading Strategies Teachers Introduced and Implemented**

Pilot study teachers at this site were instructed in one of the strategy areas at three separate workshop sessions lasting two-hours each. Each workshop session was structured by discussing the reading strategy pedagogy within the framework of before-reading activities, during reading activities, and after reading activities. Workshop training was conducted at approximately seven-week intervals during the pilot study at this site. Reading strategies introduced were:

1. 1. Reciprocal Teaching: Predict, Clarify, Question, and Summarize.
1. 2. Scaffolding Instruction: K-W-L, Use of Visual Markers (Post-it notes)

for vocabulary and comprehension retention, Key Questions, Question Stems, Outlining (grids), Note-taking, Think Aloud, Retelling, The Last Word

1. 3. Journaling: Prediction Journals, Process Logs, Reflection Journals, Prediction/Reflection Journals, And Summary Journals

2. **Teacher Implementation of a Reading Strategy Through Lesson Delivery, Student Assignments, and Content Integration**

- 2.1 Extensive Use of Guided Practice and Modeling of Reading Strategy Instruction: What will we learn from reading this article? (10/28) Teacher used the activity as a guided reading practice. (11/06) Teacher used the activity as a guided reading practice. Teacher took real lab information for the students to process by using question stemming, prior knowledge recall, self-inquiry approach, and recognizing differences in procedure. Then, students had to generate a graphic organizer flow chart of the process.(11/28) The junior students in his class brought in career related articles twice a month for reading and discussion. Teacher prepared a list of difficult vocabulary form the article for discussion in a before and after reading activity. Teacher will try the Key Questions Scaffold in his classroom and make adaptations. He has redesigned his third marking period requirements to include the scaffold in the note taking and outlining of reading material.(1/29)
- 2.2 Use of Focus Questions for the implementation of Reciprocal Teaching Strategy: Teachers at this site used a checklist of questions to implement the Reciprocal Teaching Strategy. (see Appendix B for this checklist: Are Readers Implementing Reciprocal Teaching Strategy?)
- 2.3 Teaching reading vocabulary skill development through the Use of Graphic Markers, using a Post-it notes-Vocabulary Scaffold. Teacher had the students list words in order of appearance as found in the text on Post-it notes. Post-it notes were collected, posted on the black board. Then, vocabulary words were discussed in relationship to careers. Students kept their own list of vocabulary words in a notebook. (11/13) Students liked learning the new vocabulary scaffold with use of graphic markers. (1/15)
- 2.4 Teaching reading comprehension skill development through the Use of Graphic Markers, and Post-it notes. Teachers at this site made extensive use of Post-it notes as graphic markers for making the reading process visual, tactile, and kinesthetic.

Teacher distributed a new packet of task material to the students. She used the Post-it note strategy and used K-W-L. As a pre-reading activity, she had the students write down vocabulary they did not understand or recognize on Post-it notes. She then appointed a recorder to write down unfamiliar vocabulary on the black board. Also, she told students to keep a list of these words in their notebooks. Students then went to reading the packet Students found it easier to complete the packets once they did the pre-reading vocabulary activity, and they did a good job at understanding concepts they didn't know, and started to dialogue

in a positive way. (11/11)

Students were given Post-it notes (1/2 x 2, 3 x 6) and were instructed to use the K-L-W scaffolding technique to read and summarize a packet or readings (3 pages) on the human pulse, pulse rates, and human blood circulation. Before reading, students predicted, and scanned the reading for unfamiliar vocabulary. They marked vocabulary with the 1/2 x 2 inch Post-it notes. Then, the class discussed the vocabulary they had questions about. Next, the class read the material, taking notes about major content ideas on the 3 x 6 inch Post-it note pad. After reading, the class shared the important main idea concepts they had found by large group discussion and notes generated by using the K-L-W scaffold.

- 2.5 Teacher observed that the dialogue greatly increased among students as they shared and summarized ideas in a group setting. Finally, each student was required to submit their Post-it notes with their reading packet so that she could individually monitor how each student recorded notes from the readings. Students used the Post-it notes to locate, and then generate questions about unknown or unfamiliar vocabulary. (11/20)

Students like using the Post-it notes, although it takes more time to deliver the material while using the Post-it notes, teacher's students are very kinesthetic and like to manipulate the text using the Post-it markers. Teacher is now noticing that her class is making the Post-it note graphic marker a regular part of their own reading routine. (1/22) Students liked using the Post-it notes, as they are not allowed to write in the textbook. (12/04) Use of Post-it notes in note taking for completion of the reflection journal was noted. Since the students cannot take the textbook home, the Post-it note allows the students to record information and notes used in writing the summary on question #3 of the journal. The portability of information via the Post-it notes was very important to the students. (3/26)

- 2.6 Teaching reading comprehension skill development based upon engagement of student's prior knowledge and meta-cognitive schema. The following teaching techniques were used at this site to enhance student's meta-cognitive awareness, and engage student prior knowledge to increase reading comprehension. Brief summaries are as follows on Reciprocal Teaching, Think Aloud, Retelling, and The Last Word Journal.

Teacher likes using the RT technique, the use of markers and Post-it notes, which visually points out the key concepts in vocabulary and comprehension to the students. The teacher also noticed an increase in student-to-student dialogue. Teacher also has worked extensively over the past two weeks in getting students to predict information about what they are going to read. The teacher spends a great deal of time getting the students to look at visuals, pictures, figures and diagrams in order to make the predictions about the reading. (11/20) Students are asking more questions about the visuals in the textbook, they are pre-reading more, and making predictions. (11/27)

Pre-reading Think Aloud: using the Think Aloud process to activate prior knowledge. Question stem: What do you already know about the subject of the reading: Example illustrated using Post-it notes: Vital Signs: breathing, pulse, 98.6F, life and death. A visual adaptation of thinking aloud in the K-W-L Scaffold. (1/15)

Reading Think Aloud: Teacher used the Cinderella Think Aloud in her class today with great success. Students really like the approach. Teacher was excited about its success and she sees many applications for process and sequencing process instruction in her classes. (1/15)

Post-reading Think Aloud: The following procedure was used during the Think Aloud process to review and comprehend materials already read:

1. 1. Organize the review by having the students compose and answer two questions on a Post-it note
2. Collect Post-it notes discuss and review question
3. Summarize either the whole or part of a procedural process
4. Align content area process with prior knowledge – this think aloud tells the teacher what the students are clear about a process and where they are unclear. (1/22)

Retelling: Teacher selected K-L-W scaffold because it facilitated the focusing on key areas of the reading, provided a distinct structure and organization, and allowed for structured discussion after the reading. Clarification of Retelling Procedure involved the following steps: _

1. 1. Main idea-topic identified
2. Detail sub-points of the process
3. State an idea they do not understand
4. Students generate their own questions (12/04)

2.7. Increasing student reading comprehension by integrating writing activities into the vocational classroom: Teachers at this site liked the Prediction/Reflection Journal as a journal writing activity, which engages prior knowledge and uses the following format:

a. Prediction/Reflection Before Reading:

1. 1. What would you predict this reading to be about?

2. What do you already know about the topic?
- b. Prediction/Reflection After Reading: Write one review question about the reading passage; include the source, (page #, column) and the answer the following questions:
 1. What have you learned from the reading? Write a short summary paragraph including three facts from the reading?
 1. 2. How does this reading relate to my career training?

Overall reaction was that the P/R Journal student results were appropriate to the class. Students demonstrated effort and were cooperative in completion of the assignment. Teacher thinks she will refine the Process log and the P/R Journal into one activity for next year. The front of the page will be P/R Journal #1, #2 questions and the process log questions #8 and #9. The back page of the activity will consist of the P/R Journal #3, #4, #5 questions. Teacher is planning on long-term integration of writing into her reading activities. (4/02)

1. **3. Student Reactions to Reading Strategies During Theory Sessions or Homework Assignments**

- 3.1 Students noticed that the amount of reading and written in class work has been increased from the assignments given previously. (10/30)
- 3.2 Students enjoy reading. Students are doing a lot of reading in this course. (11/06)
- 3.3 Students are capable of converting the reading materials to demonstrate practice of the skill in the Lab. Transfer of cognition is starting to be noted. (11/06)
- 3.4 Students kept their own list of sight- vocabulary words are encountered in the reading passages, which are unfamiliar. (11/13)
- 3.5 Students found it easier to complete the reading question packets once they completed the pre-reading vocabulary activity. The students did a good job at understanding concepts they didn't know, and students started to dialogue in a positive way. (11/13)
- 3.6 Students liked using the Post-it note strategy, this strategy makes reading tactile and moveable. (11/20)
- 3.7 Students are actively thinking and dialoging, speaking more in class, and are eager to use the Post-it notes. (1/15)
- 3.8 Students are asking more questions about the visuals in the textbook, they are pre-reading more, and making predictions.(1/15)
- 3.9 Students are taking more ownership in the reading process. (1/22)

- 3.10 Students are actively thinking and dialoging using the think aloud strategy. (1/29)
- 3.11 Students are taking more ownership in the reading process due to writing information on Post-it notes. (1/29)
- 3.12 Students liked using the Post-it notes, as they are not allowed to write in the textbook. (1/29)
- 3.13. Students continued to respond to reading with an improved attitude and approach toward their work. (3/05)
- 3.14 On last week's quiz, which was comprised of textbook made questions, the complete class scored grades between 80% to 100%. (3/26)

4. **Teacher Feedback on Implementing Reading Strategies**

- 4.1 RT Predicting worked very well with the students. The teacher will practice this strategy again. (10/30)
- 4.2 Teacher noticed that students were responding to questions from the reading assignments. (10/30)
- 4.3 Teacher liked the technique, the use of markers and Post-it note, which pointed out the visual side of reading to the students. (11/06)
- 4.4 Teacher liked the technique, the use of markers and Post-it notes, pointed out the visual to the students. Teacher also used the analogy to teach vocabulary terms. (11/06)
- 4.5 Teachers used the reciprocal teaching activity as a guided reading practice in the classroom. (11/06)
- 4.6 Students found it easier to complete the packets once they did the pre-reading vocabulary activity, and they did a good job at understanding concepts they didn't know, and started to dialogue in a positive way. Students really responded well with "great feedback" after the reading. "They were rolling, great answers," observed one teacher. (11/20)
- 4.7 Students were actively thinking and dialoging. Most questions centered upon procedure or process type information-request questions. (12/4)
- 4.8 Teacher reported an overall classroom increase of 4% to 9% in grade performance on teacher-made assessments. (1/08)
- 4.9 Teacher was not finding any appreciable increase in scores on her assessment tests. Teacher did note, however, that verbally (in class dialogue and discussion) there is

increased comprehension and retention as displayed through student's interaction and knowledge. (1/15)

- 4.10 Students are taking more ownership in the reading process. (1/22)
- 4.11 Teacher incorporated the key question scaffold outline in his classes and is seeing a 10 to 15% increase in quiz grades over the readings since using the grid scaffold with the students over the past month. (1/22)
- 4.12 Teacher reported overall grade increase of 3% per student in the third nine weeks marking period grades. The overall class average increased from an 81% to an 84%, due to the reading strategies being implemented into content area readings. (4/02)

5. Teacher Success With Reciprocal Teaching, Scaffolding Instruction, and/or Journaling

5 A. Reciprocal Teaching Success

- 5.1.a Students were writing questions, which clarify the reading passages and allow for a deeper discussion of reading content, also identifying areas where students are having difficulty understanding the text passage. (11/06)
- 5.2.a Teacher spent a great deal of time getting the students to look at visuals, picture, figures and diagrams in order to make the predictions about the reading.(11/20)
- 5.3.a Students are actively thinking and dialoging. (11/27)
- 5.4.a Teacher took lab information for the students to process by using questions stemming, prior knowledge recall, self-inquiry approach, and recognizing differences in procedure. (11/27)
- 5.5.a Some students asked many questions about how to follow a procedure and wanted to know what action to complete at each step of the process. (12/4)
- 5.6.a Students are asking more questions about the visuals in the textbook, they are pre-reading more, and making predictions. (1/29)
- 5.7.a Students liked learning the new vocabulary when learned in context. (2/12)
- 5.8.a Student attention was drawn to the new vocabulary list prior to reading the article and covered orally in a large group discussion. (2/12)
- 5.9.a Students liked reading the weekly articles related to their career field, teacher would continue the reading activity because it increases career area

knowledge and vocabulary development. (2/26)

- 5.10.a Instructing the students to include prior knowledge concepts with the summaries, organizing steps of a procedure into the correct sequence, writing ideas in complete sentences were steps used in teacher's approach to reading content passages. (3/19)
- 5.11.a Students continued to respond to reading with an improved attitude and approach toward their work. (4/02)

B. Scaffolding Success

- 5.1.b In using the K-W-L Scaffold, teachers observed that the dialogue greatly increased among students, they shared ideas, and summarized together those ideas, which were deemed important from the reading. (11/20)
- 5.2.b Teacher selected the K-W-L scaffold because it facilitated the supportive framework for a well-ordered reading activity. The prediction of key ideas before the reading assignment, provided a distinct structure and organizational framework for during reading, and allowed for structured discussion after reading. (11/20)
- 5.3.b Students were showing trouble in completing written outlines of the reading selection assigned to them. So teachers have designed an adaptation of the K-W-L/ Key questions scaffold. Teachers used this scaffold a few times to see if the students can use it in outlining text material. (12/04)
- 5.4.b Teacher took lab information for the students to process by identifying vocabulary, using question stemming, employing prior knowledge recall, self-inquiry approach and recognizing differences in procedure. (1/08)
- 5.5.b Teacher was using the question stems, K-W-L, and retelling strategy in the theory classes. (1/15)
- 5.6.b Teacher designed note-taking scaffold is refined and attributed to increase in higher grades on teacher designed assessments. Teacher noted a 10 to 15% increase in quiz grades over the readings since using the grid scaffold in his classes over the past month. (1/15)
- 5.7.b Teacher noted quiz grades increasing up to 20% since using grid outline scaffold over the past month, a significant increase in student comprehension over the reading materials given. (1/15)
- 5.8.b Students liked using the Post-it notes, as they are not allowed to write in the textbook, and can take the notes and place them directly into a notebook. (1/15)

- 5.9.b Teacher continued to use the Think Aloud scaffolding strategy because the teacher sees many applications for process and sequencing process instruction in the content area being taught. (1/22)
- 5.10.b Key questions, K-W-L, Think Aloud, Post-it notes with vocabulary, these scaffolding strategies are ones which seem to surface as being receptive to both teacher and student, the students enjoy the activities and respond with increased knowledge and increased grades 4% to 9% on teacher designed assessments. (3/05)
- 5.11.b Students viewed the vocabulary review with the Post-it notes as fun, and enjoyed the activity. (3/19)
- 5.12.b Use of Post-it notes in note taking for completion of the reflection journal. Since the students cannot take the textbook home, the Post-it note allows the students to record information and notes used in writing the summary on question #3 of the journal. The portability of information via Post-it notes was valued by the students. (3/26)

C. Journaling Success

- 5.1.c Students designed a written flowchart of the process. Concept mapping allows the students to increase their reading comprehension in producing a flowchart of a process. (12/18)
- 5.2.c Teacher has re-designed the third marking period requirements to include the grid /outline scaffold in the note taking of reading material. Teacher also has the students beginning to summarize information from the Last Word scaffolds and submitted a student sample today. Teacher is very happy with the journaling so far. (1/29)
- 5.3.c Students were writing more details to their journal summaries. (2/12)
- 5.4.c Students were writing more details on the shop work order form to the customer. (2/12)
- 5.5.c Students were new to the journaling process, but the ninth grade students liked the journal because it helps in the classification of concepts. (2/26)
- 5.6.c In writing journals, the students were improving the writing of passage summaries, including statements of main idea, supporting details, and a conclusion sentence. (3/05)
- 5.7.c Students are becoming better at completing the grids outline worksheets. There was also an improvement in the writing of chapter summary journals. Students on the whole are also writing better Last Word journals

and identifying specific ideas, which they do not understand. (3/05)

- 5.8.c Teacher was greatly pleased with the level of writing and detail included in the summarizing journals. (3/05)
- 5.9.c Students are writing ideas that are important to lab procedure and safety. (3/19)
- 5.10.c Students liked writing the Prediction/Reflection Journal. (3/26)
- 5.11.c Teacher emphasized an increase use of trade, technical and newspaper/journal articles that his students read and respond to by using the summary journal. (3/26)
- 5.12.c Students submitted reflection journals with some good questions generated and good opinion reaction paragraphs. (4/02)
- 5.13.c Teacher refined the Process log and the P/R Journal into one activity for next year. The front of the page will be P/R Journal #1; #2 questions and the process log questions #8 and #9. The back page of the activity will consist of the Prediction/Reflection Journal #3, #4, and #5 questions. Teacher is planning on long-term integration of writing into her reading activities. (4/02)

6. Use of a Reading Strategy in Student Discussion/Classroom Interaction, Student Question Generation, Student Journaling and Writing

- 6.1 Teacher selected KWL scaffold because it facilitated the focusing on key areas of the reading, provided a distinct structure and organization, and allowed for structured discussion after the reading. (11/20)
- 6.2 Students found it easier to complete the reading review teacher designed packets once they did the pre-reading vocabulary activity. The students did a good job at understanding concepts they didn't know, and started to dialogue in a positive way. Students really responded well with "great feedback" after the reading. "They were rolling, great answers," observed the teacher. (11/20)
- 6.3 Most questions centered upon procedure or processing information or request questions. (11/27) Teacher noted that verbally(in class dialogue and discussion) she is seeing more comprehension through the student's interaction and knowledge added to the class. (1/15) Students were actively thinking and dialoging, speaking more in class, and are eager to use the Post-it notes. Also, in the think aloud Post-it note procedure, Teacher was also color-coding each process with pink Post-it notes for safety steps. (1/29)
- 6.4 Students were asking more questions about the visuals in the textbook, they are pre-reading more, and making predictions. (1/29) Students were breaking down the automobile into the framework of system, assembly, component, part, when

asking questions, and were using the writing grid. Key Questions Scaffold, and Framework of system/Assembly/Component/Parts are being used in automotive technology classes, sample questions include:

System: What is the system of the automobile to which the assembly belongs?

Assembly: What is the assembly referred to?

Components: What are the components that comprise the assembly?

Parts: What are the parts that comprise the component? (2/24)

1. **7. Specific Pedagogical Problems Teachers Encountered During the Implementing Reading Strategies and Discussed During Helping Conferences**

7 A. Reciprocal Teaching Pedagogical Problem Areas

7.1.a Teachers needed confidence in using the RT strategies and becoming comfortable in using the predicting, clarifying, questioning and summarizing strategies. Teachers reported the need for an orientation period so that they could integrate the RT strategies into practice in their classrooms.

7.2.a Students finishing early with the reading assignments. There is too much lag time between students who finish early and slower readers. (11/20)

7.3.a Reciprocal Teaching can only be used in theory classes on Tuesdays and Thursdays to pilot study groups. A limitation of the school schedule, the other three days are lab days each week. (11/06)

7 B. Scaffolding Pedagogical Problem Areas

7.1.b Teachers needed confidence in using the scaffolding strategies and becoming comfortable in using the scaffolds presented in the workshop sessions. Using The Last Word Scaffold was a new experience for the teacher, as they felt a little uneasy in using the scaffold but not quite knowing how to remediate or prompt the writing activity. (2/05)

7.2.b Some students liked using the Post-it notes, but some higher level independent readers do not. Several teachers at this site reported that the use of Post-it notes worked well with average or below grade level readers, however, independent readers did not feel the need to use some of the Post-it note strategies. It must be remembered that scaffolds are temporary instructional supports designed to be taken away after the reader internalizes and can self-monitor their reading ability.

7 C. Journaling Pedagogical Problem Areas

- 7.1.c Students met journal-writing assignments with resistance. Several teachers reported that in their classes, some students expressed a concern about writing journals. "We never had to do this before, why write this now?" also it was a new writing experience for them, some were very hesitant writing even a few sentences, although nobody flat out refused to do the assignment. (2/05) As the pilot study continued however, the initial student concern over having to write journals subsided and the writing to learn process proceeded without additional resistance from the students.
- 7.2.c Journaling increased the amount of paperwork and correction time on the part of the teacher. Teachers liked using the Last Word Scaffold, but needed to redesign this journal scaffold to save on using so much paper. If a teacher uses this technique every day, he/she will have 70 papers a day times 5 days a week to duplicate. If the teacher duplicates the scaffold, then it takes extra time every week for to do this. The teacher will be using 350 pages a week for this journal in the classes. Also, raised was the valid question of what to do with the Last Word journal after it is written, does the teacher save it, store it somewhere, discard it? It was suggested that for the purpose of the study the teacher might wish to store the journal with the student's class portfolio as a running record of intellectual growth.

1. **8. Modifications Reading Strategies Developed and Implemented at this Site**

- 8.1. Development of the Note-Taking Outline Grid.
- 8.2 Development of Post-it Note Vocabulary Instruction for Prefix/Root word/Suffix. Vocabulary Identification. This technique was developed for use in a ninth grade class and uses Post-it notes of three different colors for prefix, root word and suffix recall and in combination with learning medical vocabulary. The Post-it notes are written by a student recorder, posted on the wall into three separate columns (Prefix---Root Word---Suffix), and then used in a speed drill format for increasing comprehension of medical vocabulary. Student recorders mix combinations of the prefix/root word/suffix Post-it notes and the class or group must decide if the recorder's combination is a real word or not, if the word is real, the side must explain the definition of the vocabulary word. The drill is used as a game with the students, as the class is divided into two sides and each student recorder selects a prefix/root word/suffix combination and tries to stump the opposing team. Teams score points or can lose points, highest point total at the end of the review session wins.
- 8.3 Use of Multiple Strategy Reading/Writing Instruction. Teacher is currently using six reading comprehension measuring strategies:
 - a. Completion of a K-W-L grid outline of written notes (daily)

- b. Writing Chapter Summaries (weekly writing assignment)
- c. Writing The Last Word Journal (daily)
- d. Writing Key Questions about the Chapter-(weekly)
- e. ASE Question Preparation-(daily activity)
- f. Test/Quiz-(Teacher designed)-(weekly activity) (3/05)

8.4 The following suggestions were offered for remediating writing when using the Last Word Scaffold:

- a.
 - a. In the opening of the class, display three Post-it notes on the center blackboard, which outlines the framework of the day's lesson. I demonstrated with Belt, Hoses, Water Pump. Having posted the concepts, students would be using the K-W-L grid the teachers designed and use in discussion. Teacher would refer back visually to the three concepts on the board frequently to check for understanding throughout the lesson.
 - b. When the Last Word Writing Scaffold would be used at the end of the lesson, then students would have access to class notes and the K-W-L grid outline to use as supplementary material to view and write about under the section "Today, I understood...". This technique anchors the lesson within a framework of the direct instruction model with a clear visual being used to introduce the lesson and activate prior knowledge in the anticipatory set, and keep the lesson in focus during the duration of the theory session instruction. Lesson in focus during the duration of the theory session instruction.
 - c. In dealing with the second question of the Last Word Scaffold, "Today, I did not understand...", It was suggested that again the students refer to the K-W-L grid outline they constructed during the class discussion session, scan the outline and select one or two major concepts in which they were having difficulty in understanding and write these ideas down into one or two sentences.
 - a.
 - d. In terms of writing, it was also suggested to the teachers that they do not accept one or two word answers, or answers in the form of phrases. Student responses should always be in the form of a sentence, a complete idea, and specific areas where understanding and misunderstanding occurred in the lesson. Here again, Post-it notes could be used for students to place visual markers at those points in the text that were particularly troublesome or well understood, and these ideas paraphrased in the comprehension writing session using The Last Word Scaffold.

1. **9. Additional Weekly Comments From Helping Conferences at this Site**

- 9.1 Concept mapping allowed the students to increase their reading comprehension in producing a flowchart of the gram staining process. (10/27)
- 9.2 A teacher stated in today's helping conference that her students' scores on her teacher made assessments are increasing 4 to 9 percent across the class. Another teacher shared these comments this week—she is not finding any appreciable increase in scores on her assessment tests. She does note, however, that verbally (in class dialogue and discussion) she is see more comprehension through the students' interaction and knowledge added to the class. (1/15)
- 9.3 This site has a staggered starting and dismissal time which impacts upon her classroom-teaching schedule. Some students are dismissed 5 or 10 minutes before or after students from other sending schools, so this really cuts into the amount of time she has with all the class members present to discuss reading passages. The teacher has found that using the graphic markers (Post-it notes) takes more class time when discussing the reading assignment, especially having 25 students and using the think aloud strategy. Using time-consuming reading strategies (Think Aloud and Reciprocal Teaching Questioning especially), plus the factor of the staggered starting class times increases the pressure on her to cover the amount of curriculum material required in the vocational area. However, her students are slowly becoming used to using the visual marker notes and she is now noticing that her class is making the Post-it note marker a regular part of their own reading routine. With daily practice, she should be able to incorporate the reading strategy and cover the required curriculum. (1/29)
- 9.4 The pace of instruction is key with using the Last Word Scaffold. Students often work in pairs and she encourages the "ASK 3 Strategy", if students have content related questions she wants the student to ask two other students and consult the textbook before they ask the question to her. This seems to work, and students now can consult their summaries for next day review of the last class session. (1/26)
- 9.5 Key questions, K-W-L, Think Aloud, Post-its notes with vocabulary. These scaffolding strategies are the ones which seem to surface as being receptive to both teacher and student, the students enjoy the activities and respond with increased knowledge and increased grades 4% to 9% on teacher designed assessments. (3/5)
- 9.6 One of the most successful key strategies found most useful in the reading study were Think Aloud (RT Summarizing), Post-it notes Visual Markers, the Prediction/Reflection Journal, and the Process Journal. This teacher felt the pilot study teachers at this site may want to help host an in-service program sharing their reading study strategies with the entire staff sometime in the future. Further, this teacher feels that the pairing of teachers with similar vocational areas works well in sharing ideas and aiding in the implementation of reading strategies during the study and something to consider when replicating the study. (5/9)

9.7 Both Automotive teachers liked the strategies developed in the pilot study and adapted to their vocational programs. They preferred the Prediction and Summary activities of the Reciprocal Teaching Strategy. One felt it very important to enact prior knowledge into the pre-reading activities. Both liked the key question and K-W-L scaffolds and the activities whereby students summarize and generate questions from the readings. Both teachers will continue to use the reading outline grids they developed during the pilot study. They will continue writing to learn activities such as The Last Word and Summary Journals. Each felt that the Post-it visual marker techniques made reading more moveable and a tactile activity for their students.

Each teacher felt that since their students cannot write in the textbook, that using the Post-it note was an excellent tool for making text moveable and portable in outside of the class writing of chapter summaries. They also found the Post-it note an excellent scaffold device in the location of main and key ideas, location of troublesome vocabulary, or reading text passages (clarification stage of the Reciprocal Teaching Strategy). Both teachers will begin their selected reading strategies in week one of the next school year. It was suggested to use students who have been trained in the pilot study reading strategies serve as peer tutors so new students in the class will be able to learn the reading activities and become comfortable in using the new techniques developed during this years' pilot study.
(5/9)

SECTION 3

OBSERVATIONS AND FINDINGS: SCHOOL 3

Background

School 3 is a comprehensive facility located in an urban setting with a 2002-03 enrollment of 450 students and a faculty of 26. There are 22 vocational subjects offered. Five teachers were involved with the pilot study at this site. The student population exposed to the various reading strategy treatments included 193 students, of which 48 students were juniors. The junior class of students was identified as the experimental group in this study. Vocational/ Technical Career Areas where the pilot study was conducted included: Automotive Body Repair, Automotive Mechanics, Computer Technology, Health Related Technology, and Welding

The Pilot Study concentrated on teacher delivery and student exposure to reading strategy skills in three focus areas: Reciprocal Teaching, Scaffolding Instruction, and Journaling. A major goal of this study was to investigate if using the specific reading strategies of Reciprocal Teaching, Scaffolding Instruction, and Journaling would increase the comprehension levels of vocational-technical students when delivered within the content area classroom. Pilot study teachers at this site were instructed in one of the strategy areas at three separate workshop sessions lasting two-hours each. Each workshop session was structured by discussing the reading strategy pedagogy within the framework of before-reading activities, during reading activities, and after reading activities. Workshop training was conducted to coincide with the district in-service training schedule during the pilot study at this site. Workshop training was delivered to the entire pilot study faculty as follows: Reciprocal Teaching-October 18, 2002, Scaffolding Instruction- November 15, 2002, Journaling- January 24, 2003. At each workshop, teachers were encouraged to pick and choose those reading strategies which they felt they were most comfortable with, and confident in using by infusing that strategy into their content area reading theory lesson instruction. A total of 19 different reading strategies were presented to the teachers during the pilot study workshops.

Helping Conferences

Helping conferences were conducted with participating teachers in order to facilitate the application of workshop content in the classroom. Weekly helping conferences were then scheduled and held individually with teachers at this site beginning October 25, 2002. This site also held a one-half hour group helping conference discussion session weekly on Friday mornings. Thus the helping conferences were held each week on an individual and group discussion basis. On several occasions, due to school holidays, snow cancellations, or teacher absence from school, some helping conference meetings were held after a two-week instructional time-span had lapsed. At no time during the study were helping conferences delayed by more than a two-week time span.

Exit reporting from the teachers indicated that the weekly group meeting approach to conducting the helping conference was successful as it allowed for increased dialogue between teachers, sharing of ideas, and discussion concerning how to integrate the specific strategy in a vocational content area. Teachers also felt that the individualized conference session helped to refine and

implement those reading strategies discussed during in-service workshop training.

During the individual helping conference session, teachers were asked to respond to the following areas as reported below. It is important to note that responses recorded in individual helping conference site reports and written with the purpose of keeping a record concerning how the reading strategies were implemented concentrated on the following areas:

1. Reading strategies teachers introduced and implemented with students.
2. Teacher implementation of reading strategies through lesson delivery, student assignments, and content integration.
3. Student reactions to reading strategies during theory sessions or homework assignments.
4. Teacher feedback on implementing reading strategies.
5. Teacher success with Reciprocal Teaching, Scaffolding Instruction, and/or Journaling.
6. Use of reading strategies in student discussion/classroom interaction, student question generation, student journaling and writing.
7. Specific pedagogical problems teachers encountered during the implementation of reading strategies and discussed during helping conferences.
8. Modifications of reading strategies developed and implemented at this site.
9. Additional weekly comments from helping conferences at this site.

1. Reading Strategies Teachers Introduced and Implemented

Pilot study teachers at this site were instructed in one of the strategy areas at three separate workshop sessions lasting two-hours each. Each workshop session was structured by discussing the reading strategy pedagogy within the framework of before-reading activities, during reading activities, and after reading activities. Workshop training was conducted to coincide with the district in-service training schedule during the pilot study at this site. Reading strategies introduced were:

1. 1. Reciprocal Teaching: Predict, Clarify, Question, and Summarize.
1. 2. Scaffolding Instruction: Key Questions, Question Stems, K-W-L Outline, Visual Markers (Post-it notes) Location of Main Idea, Vocabulary development, Two Minute Preview, Think-Pair-Share Retelling, Think Aloud.
1. 3. Journaling: Summarizing, Process Log, Prediction/Reflection Journal, Summary Report, Power Point design.

Note: For the following sections, the date after each statement indicates the date when a teacher

reported the idea and was cited in the helping conference site report.

2. Teacher Implementation of Reading Strategies Through Lesson Delivery, Student Assignments, and Content Integration

- 2.1 Extensive Use of Guided Practice and Modeling of Reading Instruction with the aid of Scaffolding Strategies: Students read, write, and present reports in the Health Related Occupations class, and the class was structured to make sure all student present orally what they have learned. Students are writing papers on the Human Skin and Skin conditions and Skin Diseases. Teacher used Welding videotapes from Delmar Publishers this week with the Key Questions Scaffolding. The topic was brazing and fluxing. First, a pre-test (Delmar Publishers design-10 questions Multiple choice) was given before watching the video. While the students watched the video key questions such as Who, What When Where, Why and How were answered using the Key Questions scaffold. Then, after the video program was finished, students discussed the key questions scaffolding sheet. Teacher will give a post-test (Delmar Publishers design-10 questions Multiple choice) today on the video to test for retention and recall. (11/22)
- 2.2 Use of Focus Questions for the implementation of Reciprocal Teaching Strategy: Teachers at this site used a checklist of questions to implement the Reciprocal Teaching Strategy. (checklist is included in Appendix A)
- 2.3 Teaching reading comprehension skill development through the Use of Graphic Markers, Post-it notes. Auto Mechanics teacher made use trade publication news articles to help with reading, textbook is very difficult to read and comprehend. 11/08 The Paired-Reading activity, Scaffolds: Key Questions and K-W-L, and Post-it note markers for locating main ideas and vocabulary development were significant with the students with special needs. Through the use of Post-it notes, the students with special needs were able to confidentially share and seek out help on reading information they did not understand. (1/28)
- 2.4 Teaching reading comprehension skill development based upon engagement of student's prior knowledge and meta-cognitive schema. There was not enough of a connection made between the theory and the importance of learning the theory behind welding before the students learn the application and practice. (1/17) Students completed the K-W-L Scaffold after reading the vision unit material. Teacher had the students write a process log on the prompt: Explain to the patient the vision screening procedure. (3/04)
- 2.5 Students liked using the Key Questions Scaffold auto mechanics—history of the automobile, Teacher hoped to link this reading with the film: Tucker a Man and His Dream, which he plans on using this week. Key questions: Who, What When, Where, Why and How? What do the key vocabulary words mean? How do the key vocabulary words relate to the text? (1/14) Teacher had students read for location of information by answering questions they formed by using prior knowledge about the reading and key terms covered in the theory session of the class. He

hopes that the interaction will help the students to retain more by using teams of students (3 to 4) to use the text questions and locate information and answers throughout the text. In drill exercises on key terms, the students had to read the chapter to locate the meaning of the term and understand the term in reference to welding. (1/14)

- 2.6 Increasing student-reading comprehension by integrating writing activities into the vocational classroom.
- 2.7 Students in the Health Related Occupations Curriculum were assigned to write a monthly informational report. Students research current trade articles, and Internet sources and write a short report (3-5 pages) on the health topic selected for the month. In September, the topic was Sexually Transmitted Diseases, for October the topic was the Heart and Heart Diseases. Students were assigned to read current articles, extract information from the articles, include graphics, pictures into their report and design a cover page.(10/25) Students then present their report orally to the class.
- 2.8 Teacher assigned students to find a weekly news article related to their area of health and read the article, then write an overview of their reactions to the article. (11/01) For November, Teacher assigned research topics in the human skin and skin conditions and diseases. (11/22) For December, the teacher had the student create writings on twins. (12/10) Teacher discussed the setup she has for journals in her class. She requires the students to keep a journal and write in the date, class objective, any student questions to the day's lesson and a reaction to the lesson (self-reflection).
- 2.9 There were no word limits set on how much a student may write. She promoted writing in her class and encouraged students to write about their life experiences in relationship to the lesson. For example, if the teacher is discussing heart diseases, she may ask the students to describe a time when someone they knew may have had a heart disease or if they know of any famous celebrities who had a heart disease. Basically, students are to write about subjects covered in the class and how it relates to them in terms of training or personal reflections. (1/23)

1. **3. Student Reactions to Reading Strategies Activities Used in Theory Sessions, or Assigned as Homework**

- 3.1 Success with Reciprocal Teaching indicated that students had positive attitudes and reactions to reading strategies applied in her class. (10/25)
2. 3.2 Students like researching on the computer and reading about their topic. Students were assigned to read current articles, extract information from the articles, includes: graphics, pictures into their report and design a cover

page. (11/08)

- 3.3 Students read, write, and presented in her class. The class was structured to make sure all students present orally what they have learned. (11/22)
- 3.4 The students liked the readings and the self-selection of readings is motivational because students read about those areas, which interest them. (12/03)
- 3.5 The students liked giving the two-minute oral presentations. (1/10)
- 3.6 Students liked using the Key Questions Scaffold in the content area readings, location of specific information, and learning of troublesome vocabulary in the reading. (1/21)
- 3.7 When presented with a motivational article about a heart lung transplant, students asked a lot of questions about this article. (2/21)
- 3.8 Students liked reading information from a website because websites may also contain links which can send the student to other web pages to gather more information. (2/21)
- 3.9 Students recognized that they need this type of work. Locating main idea information, vocabulary development, reading articles on tools used in the health occupations. (2/28)
- 3.10 Students recently began to ask a lot of questions dealing with why or how a process happens.(3/04)

4. Teacher Feedback on Implementing Reading Strategies

- 4.1 The teacher gave the students a little bit of the reading strategy at one time, so they would not feel overwhelmed. (10/25)
- 4.2 The teacher used the predicting skills of RT in establishing purpose, engaging prior knowledge, and asking students for possible outcomes before they read. (11/01)
- 4.3 Success with student reaction this week was one of completion of the assignment. Students made the attempt to complete the assignment and that was a success. (11/01)
- 4.4 The teacher saw greater student interaction when the students read and can then write about what they read. She thinks the pilot study is going well in her classroom. (11/22)
- 4.5 Students arrive in teacher's shop immediately after lunch, causing a problem with disinterested students falling asleep or relying on others to do the readings for them. Teacher hopes the small group activities will keep the students awake and eventually make reading attractive for the disenchanted reader. (12/10)

- 4.6 Students read, write, and present in her class, and she is structured to make sure all students present orally what they have learned. (12/10)
- 4.7 Teacher saw her student grades increase by using the reading pilot study techniques. Comprehension and student dialogue also increased. Students relate stories about their life experiences into the classroom discussion topic. (1/17)
- 4.8 When the students did read, they concentrated more when the teacher previews the reading with them. Students read better when a clear need are established to know the content of the reading passage. (2//04)

5. Teacher Success with Reciprocal Teaching, Scaffolding Instruction, and/or Journaling

5 A. Reciprocal Teaching Success

- 5.1.a Students were talking more about the reading. Also, The students could choose the readings and they liked that. Teacher used trade publication news articles to help with reading, as the textbook is very difficult to read. (10/25)
- 5.2.a Students were asking more questions about vocabulary. Students asked many questions about the text, more questions were being asked before they read. (11/08)
- 5.3.a Teacher was practicing RT strategies to increase student engagement. Teacher observed that students were more engaged and talked more about the readings when given choices of passages to read. (11/19)
- 5.4.a Students liked the Post-it note review process. (11/19)
- 5.5.a Teacher was having the students read for location of information by answering questions they form by using prior knowledge about the reading and key terms, which were covered in the theory session of the class. (12/06)
- 5.6.a The reading passage was assigned to build on prior knowledge and extend knowledge through reading and writing. (1/14)
- 5.7.a Teacher used all four parts of the Reciprocal Teaching Strategy, and liked predicting and questioning the best. (2/11)
- 5.8.a Students were reading, but some had trouble with the technical content of this unit so the teacher will slow the pace of instruction to allow for more discussion, dialogue, and read-pair-share activities. (3/25)

5 B. Scaffolding Success

- 5.1.b Scaffolding vocabulary skills were used with the afternoon class. Use of the Key Questions Scaffold. (11/19)
- 5.2.b Students were able to extract information from the text better and in a more organized fashion by using the key questions scaffold. (12/03)
- 5.3.b Students have a short attention span, so they ask a lot of questions, mainly about the procedure of how to do a task. Students liked using the Key Questions Scaffold. (12/03)
- 5.4.b The Key Questions Scaffold was selected to get the students focused on locating and finding specific pieces of information. (12/10)
- 5.5.b The teacher formed three reading groups of 6 –7 students each to cover specific readings and share the information with the class. (12/10)
- 5.6.b Students were able to extract information from the text better and in a more organized fashion by using the key questions scaffold. (12/10)
- 5.7.b The teacher saw the students develop better skills in following directions on tasks. (1/17)
- 5.8.b Students used Post-it notes and they have access to dictionaries in the classroom, which are available for getting definitions of unknown or unfamiliar words. (4/01)

5 C. Journaling Success

- 5.1.c The teacher felt the Reciprocal Teaching strategy was effective, because it gave the students an organized method in which to write their opinions. (11/08)
- 5.2.c The students selected an article, read it, then took notes on 3x5 cards and then gave an oral presentation of 10-15 minutes to the class. (11/19)
- 5.3.c Students wrote a detailed research paper based on 12 required areas of the project. This is a long-term project integrating reading, writing and technology skills. (1/21)
- 5.4.c Students were required to keep a notebook; one was that the students had a record of progress in terms of their note taking over the material they have read. (2/28)
- 5.5.c Students were writing summaries on the power point presentations. (2/28)

- 5.6.c Students were assigned to read attached papers, completed the key questions and then summarized the procedure in writing for the recording of patient intake. (3/25)
- 5.7.c Success with the Prediction/Reflection Journal was achieved with high interest reading materials. If students like what they are reading about and can related it to their career study, then they will be more responsive to reading the material. (4/1)
- 5.8.c Students extended the journal by writing a short paragraph summarizing their opinions to the article, and summarizing the key ideas written in their Prediction/Reflection Journal. (4/02)

1.6. Use of the Reading Strategy in Student Discussion/Classroom Interaction, Student Question Generation, Student Journaling and Writing

- 6.1 Students answered class questions after their presentations on the history/health projects. Students biggest questioning came in the area of new vocabulary words. Health uses many medical terms that students need help in reading, decoding, and understanding the definition. (11/08)
- 6.2 Students recently began to ask a lot of questions dealing with why or how a process happens. Why do people have transplants? How does a person get on a list to receive a transplant? How is it determined which person should or should not qualify for a transplant? (2/28)
- 3. 6.3 Students were assigned to read attached papers, complete the key questions and then summarize the procedure in writing for the recording of patient intake.
- 3. 6.4 Students read, write, and presented the procedure for recording intake and output in her class. Teacher required all students present orally what they have learned. For example:
 - How does a nurse record Intake and Output data?
 - Can a nurse accurately measure fluids put into the body?
 - How does a nurse complete a patient chart?
 - How does a nurse report findings about a patient's intake and output?
 - What statements does a nurse say to a patient about the patient's intake and output?
 - What questions does a nurse say to a patient about the patient's intake and output?
- 6.4 Success with the P/R Journal can be achieved with high interest reading materials.

If students like what they are reading about and can related it to their career study, then they will be more responsive to reading the material. Example questions included:

What is the percentage of surgical mistakes?

Why wasn't there any disciplinary action taken at the hospital?

What was the cause of serious injury and death at this hospital?

How many patients died at MCP Hospital because of medical mistakes?

Why is a lot of hospital error not unusual?

When doctors and nurses make mistakes, what is their punishment?

7. Specific Pedagogical Problems Teachers Needed Encountered During the Implementation of Reading Strategies and Discussed During Helping Conferences

- 7.1 Students did not like to present the oral report in front of the class. Teacher established a round table presentation method whereby students circle the chairs and present the material while being seated. (11/22)
- 7.2 K-W-L, Two Minute Preview - both took longer than anticipated to complete. (12/13)
- 7.3 Students lacked the motivation to read, he has many misplaced students who don't want to be there. (10/29)
- 7.4 Teacher spent a great deal of time in this meeting discussing the various problems that he and the students face at this site. Several student problems he feels will affect this study's outcome and student performance outcome on the PSSA. These factors are: lack of motivation to read, inattentive students, disruptive students, poor placement of students into his shop, student poor attitude, and a poor home environment.

Teacher indicated the overall change in the placement process of students into his program at this site. Students really don't have a choice, if their vocational selection is filled, then they are randomly placed into any shop, so the students may not even have an interest in the shop they are placed into. The Automotive Mechanics Program has cut four teachers, he is the only full time vocational teacher left. He also has an automobile parts room aide, and a part-time shop aide. Teacher also admitted that while being by himself, he cannot cover the range of skills needed for placement into the workforce.

He spent a lot on time teaching students to be respectful, to stay on task, to be responsible, to complete their work. These soft skills are important to him and the

program. Also, teacher feels that students are lacking the basic skills of reading and writing, and that this condition is getting worse as the years go by. Teacher has 29 years of experience as an auto-mechanics certification and he feels frustrated in the site's current situation, and reflecting on what it was like in the past. (11/08)

7.5 Teacher expressed his opinions today about the many factors which influence his students in terms of environment, student placement, motivation, discipline, and student attention span. He felt that the reading skills development are not getting done in the grades 6-8 where it should be taught. He believes that the reading strategies should be taught across all content areas, not just in voc-ed. He also stated that the students short attention span prevents him from covering the wide amount of welding material needed for success in the trade. (11/19)

7.6 Teachers noted that theory lesson instruction time is segmented due to the live workshop. Teacher noted that he also runs a live workshop where the public's cars are brought in for work and he must split his time and supervision between the classroom, live shop and training stations. He is the only instructor. The situation makes it difficult because he cannot be with the reading group the entire time during their theory session as he must also be in the shop. (11/19)

8. Modification of Reading Strategies Developed and Implemented at this Site

1. 8.1 Significant Practice: Teacher developed a plan to use with the engagement of readers in the welding shop with the use of an oral presentation project.

8.2 A pair of students using the Internet search for articles of their interest in the American Welding Society website. The students selected an article, read it, then took notes on 3x5 cards and then gave an oral presentation of 10-15 minutes to the class. The topics this week were careers in welding and plastics welding. Teacher cited great success with the trial run of this strategy and he will have four other students try the technique next week.

8.3 Also, teacher began integrating computer with reading and writing skills in the development of a welding shop school newspaper and the development of a school calendar. Teacher believes that the newspaper will get the girls in the class interested in reading, writing and reporting on school and shop events. (11/19)

1. 9. Additional Weekly Comments From Helping Conferences at this Site

9.1 Teacher gave her students a little bit of the strategy at one time so they will not feel overwhelmed. (10/25)

9.2 Teacher was greatly concerned about the selection process for bringing students to his lab. He was concerned that the level of reading was not high enough for the students to learn the material and go into entry-level jobs in the welding workplace. He hoped that the reading program pilot study will help and that the effects of the study will be used earlier in the student's education, before they get

to him in his shop. (11/8)

- 9.3 Teacher shared these comments about the pilot study today. At first, he was very skeptical about the project, because he felt that this reading skill approach should be integrated school-wide in English and other classes, not just in his welding class. As the project advanced over the first three months he has had a change of attitude about reading in his classes. He now feels that the reading techniques used in the TU Study can help his students with the information in an age of technology. Key vocabulary is important and a good technique where he has found reading success is vocabulary study through note taking, and copying important notes directly from the book into their notebook. His teaching theory is shortened in lecture and more time is spent in understanding key vocabulary concepts and welding processes. He wants his students to understand this material. He adds that if other curriculum support is given in academic core courses, that this project would work better because students would see a linkage of reading skills across the entire program of their vocational and academic studies. (1/14)
- 9.4 Teacher is seeing her grades increase by using the reading pilot study techniques. Comprehension and student dialogue are increasing. Students relate stories about their life experiences into the classroom discussion topic. (1/17)

SECTION 4

END OF PROJECT TEACHER SURVEY

A 3 part survey of participating teachers was conducted at the end of project to determine their opinions regarding: (a) the effectiveness of the reading strategies they used with their students, (b) the relative effectiveness of the various aspects of the weekly helping conferences, and (c) the effectiveness of the format of the helping conference they were exposed to. Data were collected through the use of a 4-point Lickert type scale ranging from a low of 1 to a high of 4.

Findings from the 14 respondents in the first part of the instrument indicted relative contribution levels of the reading strategies employed in the project on teacher success in helping students increase their reading skills. The overall range of findings for the 3 strategies (i. e., Reciprocal Teaching, Scaffolding and Journaling) in part 1 of the survey instrument ranged from a low of 2.50 for item “11” Journaling RAFT Guidelines to a high of 3.85 for item “4” Reciprocal Teaching Summarizing. In descending order, the average means for each of the 3 reading strategies was Reciprocal Teaching (3.67), Scaffolding (3.46), and Journaling (3.09).

The second part of the instrument surveyed teachers on the influence of the helping conference in regard to its contribution to the teaching/learning process as it relates to the possible increase of student reading skills. The means for this section ranged from a low of 3.00 for item “10” designing appropriate assessments for measuring student reading comprehension to a high of 3.92 for item “1” a specific reading strategy teaching method used in your class. A complete listing of the mean ratings for all items is included on the instrument, which follows.

Temple University Reading Project

Part 1: Reading Strategy

Directions: The following statements list various **reading strategies** used throughout the duration of the Temple University Reading Project Pilot Study. Using the scale provided, rate each reading strategy listed below in regard to the contribution it has made to your success in helping students increase their reading skills. Place the appropriate number or letters in the space to the left of each strategy.

Reading Strategies Level of Benefit Scale:

NA	1	2	3	4	
Not applicable	none	little	average	high	

Reciprocal Teaching using:

3.54 1. Prediction Strategy

3.62 3. Questioning Strategy

3.67 2. Clarifying Strategy

3.85 4. Summarizing Strategy

Scaffolding Strategies using:

3.45 5. Two Minute Preview

3.25 8. Note-taking/Outlining

3.64 6. The K-W-L Chart

3.31 9. Think Aloud Strategy

3.62 7. Key Questions

3.50 10. The Last Word Guide

Journaling Strategy using:

2.50 11. RAFT Guidelines

3.00 15. Directed Teaching Activity

3.00 12. The Process Log

3.00 16. The Discussion Journal

3.17 13. The Prediction Journal

3.11 17. The Learning Logs

2.89 14. The Writing to Learn Guide

3.54 18. The Reflection Journal

3.62 19. The Prediction/Reflection Journal

Comments: (see next section of this instrument)

Part 2: The Helping Conference Visitation Process

Directions: Using the scale provided, rate the **helping conference visitation process** listed below in regard to the contribution it has made to your success in teaching students to increase their reading skills. Place the appropriate number in the space to the left of each strategy.

Helping Conference Level of Benefit Scale:

NA		1	2	3	4
Not applicable	none	little	average	high	

Discussion of:

3.92 1. a specific reading strategy teaching method used in your class.

3.69 2. a current reading assignment in your class.

3.67 3. a specific reading strategy used by other pilot study teachers at your school.

3.49 4. a specific reading strategy used by other pilot study teachers at other schools sites.

3.85 5. integrating a specific reading strategy into your vocational classroom.

- 3.46 6. modeling how to teach a specific reading strategy.
- 3.67 7. describing how to customize a specific reading strategy to your classroom audience or needs.
- 3.58 8. teacher perceptions and reactions to the pilot study.
- 3.25 9. focusing upon writing activities linked to your theory lessons.
- 3.00 10. designing appropriate assessments for measuring student reading comprehension.
- 3.67 11. teacher experiences when applying a pilot study reading strategy.
- 3.41 12. student reactions when applying a pilot study reading strategy.

Communication Settings:

- 3.82 13. The helping conference was effective when conducted individually with a pilot study teacher.
- 4.0 14. The helping conference was effective when conducted with pairs of pilot study teachers.
- 4.0 15. The helping conference was effective when conducted with weekly, group meetings with all pilot study teachers present.

Comments:

- 1. 1. The program is an excellent tool to use in the classroom!
- 1. 2. This project is showing students how to take the chore of reading for information into a systematic approach & ultimately seeing success in knowledge retention.
- 3. Reading project was very helpful to teachers and students.
- 4. Would like to do this again. The reading project was well done.
- 5. This study helped me to organize all the different reading & writing strategies that I previously used into a cohesive well structured series of tasks that will help not only my students to better understand their lessons but will help me as a teacher better prepare my daily lessons.

APPENDIX A

Strategies for Your Reading Success! Health Occupations/Health Sciences

Step 1. Before beginning this reading assignment, ask yourself the following:

What will this chapter/unit be about?

What do I know about this subject?

Scan the content of the chapter/unit.

Look at the headings.

Look at the subheadings.

Look at the bold face words. Look at the graphics. Ask yourself:

Why is this unit or chapter important?

How will this help provide better patient or resident care? Use the KWLH technique.

This is known as Predicting

Step 2. Define unknown terms and unfamiliar words

Use Post-it notes.

Write down key terms and define. Ask yourself:

Am I focusing on the idea, word or pronunciation that I am unsure of knowing?

Am I re-reading difficult sections? Am I outlining the section I am reading?

Am I asking for Help?

This is known as Clarifying

Step 3. Identify ideas or sections of the readings that need discussion or clarification.

Use Post-it notes. Ask yourself:

What questions do I have about this chapter/unit?

Design your questions around the Who, What, When, Where, Why and How.

What will follow? How and why is this important to me?

Record your questions in a notebook.

This is known as Questioning

Step 4. Summarize and share your ideas with the class.

Use Post-it notes. Ask yourself:

What were the most important points of the assigned reading?

Do I need to review Steps 2 and 3? Share your information with others.

This is known as Summarizing

Process Journal, Welding

Teacher has the student write a journal of their process and lab projects. Teacher uses four key questions seen below:

- a. What were you supposed to do?
- b. What did you do well?
- c. What would you do differently next time?
- d. Do you need any help?

Students respond in the journal by writing to these four questions. This type of journal is completed after every welding lab project.

Prediction Journal, Cosmetology

Teacher designed journal framework for pre-reading and predicting reading strategy.

Question #1: Prediction Strategy: Scan the pages; predict what you think you will learn.

Question #2: Activate Prior Knowledge: Write what you already know about the reading passage.

Question #3: Questioning Technique from RT: Write two questions of what you are trying to understand from these pages.

Question #4: Prediction RT: What do you hope to learn from reading these passages?

Question #5: Self-Monitoring Strategy: What reading strategies are you going to use to help you understand the materials.

Scaffolding the K-W-L Strategy, Cosmetology

K-W-L: with Post-it notes: A Multiple Post-it Note Technique

1. 2 minutes—tell me what you know about...**scan** yesterday's reading.
2. 3 minutes--on one Post-it note (6x4 inch) **write 2 statements reviewing** the materials we read and discussed yesterday
3. minutes- **scan** new passages of the readings—Tell me what you think you will learn about the passage...
 1. On one Post-it note (6x4 inch) **write one statement predicting** what you think you will learn about the passage...
 2. Discussion of prior knowledge and predictions Post-it note responses
 3. Read the next 8 pages of the text and write on one Post-it note (6x4 inch) an outline of the main vocabulary presented
 4. After reading---- discussion of Post-it outline—What information would you review for a quiz? Highlight key points of the 8 page reading in your textbook
 5. Prepare for tomorrow's lesson by rereading that information which was not understood by you.

Prediction/Reflection Journal with Small Groups, Cosmetology

Lesson Plan for using P/R Journals with Small Groups

1. Teacher divided the class into groups of three students to a reading/writing group.
2. Each group was responsible for reading a short 3 page passage from the chapter.
3. This passage became the focus of the group's journal writing responses.
4. Each group had to preview the reading and develop 3 prediction questions from the reading to share with the class.
 1. 5. The class then discussed each group's prediction questions, with the teacher noting key points for the group to focus upon during their reading.
6. Each group was then given 15-20 minutes to read the text passage silently, discuss their passage with the group and write three key review questions over the text passage assigned.
7. The group then developed a group summary of the reading and wrote the summary

collectively.

8. Each group then selected a spokes person to read the group's summary to the class.
1. 9. Then, the spokes person asked the class the group's three review questions from the passage and discussed the answers.
10. The class was able to review the entire chapter over a twenty minute period with each group orally presenting their portion of the chapter reading.
1. 11. Individual journals with the group summary were collected and graded by the teacher in terms of above average, average, and below average work.

Question Stem Generation, Computer Technology

The following question stems were used in a computer technology class to help increase comprehension of the text passages. Key question stems used:

1. What are the differences between...
2. Why would you create...
3. When (given a situation), what would you do...
4. What is the advantage of...
5. Explain why you cannot do a process a given way?
6. Give an example of when a situation occurs?
7. What is difference in appearance of ...
8. What is the purpose for using...
9. Under what conditions does a situation occur?
10. Which procedures launch another set of procedures?

APPENDIX B

A Quick Checklist

Are Readers Implementing Reciprocal Teaching Strategy?

Are Readers Predicting? (Readers focus on the familiar information and scan new information before reading)

Are your students:

Focusing on the purpose of the reading?

Using prior knowledge?

Examining titles, subtitles, and visual clues?

Making predictions about information they will learn?

Making a connection to real-world applications of the text?

Are Readers Clarifying? (Readers use these strategies to make the text easier to understand before and during reading)

Are your students:

Focusing on an idea, word, or pronunciation about which they are unsure?

Re-reading difficult segments of the text?

Scanning back and forward in the text?

Changing their speed of reading?

Using graphic organizers or notes to help outline and guide reading?

Asking for help in comprehending the text from their peers and the teacher?

Are Readers Questioning? (Readers monitor and adjust comprehension during the reading process as a means of self-testing during and after reading)

Are your students:

Forming questions about the text while they read?

Forming self-questions by asking who, what, when, where, why, and how of the text?

Inferring about what information will follow in the text?

Forming question stems linking text information to real-life application?

Are Readers Summarizing? (Readers use summarizing strategies after reading as a means of self-review by identifying the most important points of the text selection)

Are your students:

Orally paraphrasing or retelling the reading selection to peers?

Applying information in the reading selection to a vocational practice in the lab?

Summarizing the text selection as class work and/or homework?

Generating questions from their summaries to test for retention?

Writing summaries of what they read?

Including important main points and ideas in the summaries?

Organizing summaries by use of outlines, webs, or mapping?

Evaluating their ideas with their peers?