College of Education
TEMPLE UNIVERSITY®

Center for Professional Development in Career & Technical Education

An Examination of the Impact of the Temple University Reading Project on the Delivery of Instruction and its Influence on CTE Students

by

Chester P. Wichowski, Associate Director
Center for Professional Development in Career & Technical Education

Gloria Heberley, Research Associate
Center for Professional Development in Career & Technical Education

July, 2009

Introduction

The reading instructional materials used in the delivery of 5 Governors Institutes on Integrating the Pennsylvania Standards on Reading, Writing, and Speaking and Listening were developed in response to a concern with the low reading skills of many Career and Technical Education (CTE) students. Further, the reading strategies incorporated in these materials were selected for their proven effectiveness with students from a variety of backgrounds, and in particular, with students in selected CTE programs in Pennsylvania through a research and development project conducted by the Temple University Center for Professional Development in Career and Technical Education funded by the Pennsylvania State Department of Education, Bureau of Career and Technical Education, (Wichowski & Garnes, 2003-04).

Reading is a fundamental skill. It is central to all learning and contributes to varying levels of success in school as well as in the workplace. After an analysis of the 1999 National Assessment of Educational Progress, NAEP, examination data, it was concluded that the reading levels of high school age students are alarmingly low. Further, it has been determined that reading ability level is the common denominator for predicting success levels on all of the NAEP examinations.

 The ability to read at an early age is an accurate predictor for later success in school as well as in other aspects of one's life. It serves as a predictor for academic success, academic difficulty, discipline problems and drop-out rates with a fairly high level of accuracy. Even more serious, it should be noted that sociologists in several states have used early elementary grade low reading scores (first, second and third grade) to accurately predict prison populations several years later.

According to the National Institute for Literacy, unemployment rates among people with very low literacy rates were 4 to 7 times higher than individuals in the labor force with high literacy rates (1999). A review of 2001 Pennsylvania State Student Assessment, PSSA, data showed that 61% of the 11th grade vocational-technical students indicated they consider the purpose of reading assignments only sometimes or rarely. Yet, the ability to read and the application of reading in the workplace is increasingly critical and schools must play a leading role in creating interventions that will increase reading ability.

Traditionally, the teaching of reading in Pennsylvania to the average student, as well as in most states, does not extend beyond the sixth grade. Further, the availability of any specialized reading support beyond the sixth grade is usually not provided unless a student has a severe reading problem. Under this structure, the good reader will often evolve into a good student. The average or poor reader will likely remain an average or poor student. Without any additional assistance, the fate of the marginal reader is not very promising.

Also contributing to this unfortunate situation is the preparation of the teacher. Almost all teachers (and it should be noted that this includes most English teachers, as well as most other academic and CTE teachers) have not been exposed to nor have they been professionally prepared to use reading strategies in their instruction. Despite this, there are content related instructional modifications that can be done by the teacher to assist the marginal reader. Further, these modifications may be particularly effective in a CTE setting.

It is important to recognize that the CTE student is motivated. Most CTE students have elected to be in a CTE program area due to a high level of interest. This basic fact is extremely important for at least two fundamental reasons. First, this motivation provides a window of opportunity for the teacher to integrate proven reading strategies into the CTE instructional process. Secondly, many of these reading strategies that can be incorporated into the delivery of CTE content are particularly appealing due to the interactive learning styles which are characteristic of many CTE students.

This instructional modification, i.e. the use of selected reading strategies integrated into the instructional process, were designed to provide the CTE student, who may be a marginal reader, with the reading skills that the good reader already has developed. Further, this will provide the CTE student who is already a good reader with skills that will likely further enhance their reading ability.

A Facilitators Guide was developed by the Center for Professional Development in Career and Technical Education to support a train–the–trainers model for the integration of reading strategies in CTC classrooms, (Garnes and Wichowski,2001). The strategies included in these instructional materials are divided into 3 major categories; Reciprocal Teaching, Scaffolding, and Journaling. Each of the Guidebooks for Facilitators includes the following, (1) Power Point Presentation, (2) List of Materials, (3) Facilitator Instructions, (4) Participant Instructions, (5) Facilitator Readings, and (6) Handouts for the Delivery of the Presentation. The Power Point presentation for each of the strategies is on a CD ROM provided with the instructional materials notebook. This Facilitators Guide served as the instructional core for Governors Institutes between 2003 and 2007.

Although each Governors Institute was evaluated extensively throughout the week of the institute and through a series of six month follow-up evaluations which were highly positive, there are several extended term research questions that have yet to be answered.

The following research questions were applied to the population of individuals who have participated in the Governors Institutes on Reading, Writing, Speaking and Listening between the years of 2003-2007. Although there were a series of 6-month follow-up surveys conducted by the Governors Institute external evaluator following the Institute each year that yielded very positive results, (Heverly, 2004,2005,2006,2007, and 2008), there was never any follow-up research conducted on this activity that could be utilized to answer any of the following long-term research questions.

Research Questions

1. Who were the respondents to this survey?

2. Which reading strategies from the Governor's Institute have been adopted on a long term basis?

3. Which reading strategies are used most frequently?

4. What delivery model was used for the training of other teachers in the use of the reading strategies?

5. How frequently were helping conferences or small group support discussions held during the implementation of the reading strategies?

6. How many applications of a reading strategy did it take to develop a high level instructional comfort?

7. What changes were noted in student classroom behavior that could be attributed to the use of reading strategies in the instructional process?

8. In what way were the reading strategies from the Governors Institute modified?

9. How did the implementation of the reading strategies impact on the reading ability of CTC students as measured by:

    a. PSSA test scores

    b. publisher made tests

    c. student NOCTI tests

    d. teacher made content tests

    e. independent measures

Research Design

The following protocol was used in the conduct of this research activity.

1. A listing of the email addresses of participants from the 5 Governors Institutes between 2003 and 2007 was secured.

2. Design a follow-up survey instrument and a possible set of behavioral event questions to assess the continued in-school use of reading strategies presented at the Governors Institute.

3. Distribute the survey to an identified sample.

4. Edit the behavioral event questions following a review of survey data collected.

5. Conduct behavioral event interviews.

6. Collect and analyze data.

Research Procedures & Findings

Instrumentation

A 4 part research instrument was developed which included sections on the background of the respondents, activities associated with the implementation of RWSL strategies, levels of student achievement that were attributed to the use of RWLS strategies, and factors associated with the training of colleagues in the use of RWSL strategies. The instrument was reviewed for content validity by a panel of experts associated with the development and delivery of the RWLS content provided during the conduct of the 5 Governor's Institutes. Further, the instrument was edited to meet the format requirements necessary for electronic delivery on a Zoomerang web-based platform. A copy of the survey instrument is provided in Appendix A.

Survey Procedures

The population identified for this research effort consisted of all of the individuals who participated in the 5 Governors Institutes between 2003 and 2007 was N=270, this population was reduced to N=262, due to 8 undeliverable emails. These individuals were contacted by means of a web-based electronic survey using a Zoomerang platform. The initial distribution of the survey yielded a self selecting sample of 43 (a 16% response rate). A follow-up survey which was conducted 3 weeks later, increased the response rate to 29%, (N=75).

Findings

The findings of this research activity are reported in the order they were addressed in the survey instrument and as they relate to the research questions identified in this study. Further, there will be information provide that was obtained from a series of follow-up interviews with survey participants who volunteered to be answer questions related to the content of this study. Additional comment is provided as they relate to the findings of the 6-month follow-up studies following the delivery of the Governor's Instituted on RWLS between 2004 and 2007.

SURVEY INSTRUMENT PART A:
BACKGROUND

RWSL Participant Team Size

The largest group of respondents, (59%) indicated they were members of RWLS Governor's teams ranging from 2 to 5 persons. The RWLS Institute team sizes most frequently reported by 37% of the respondents was between 3 to 5 persons, followed by 22% of the respondents who indicated they were part of a team consisting of 2 persons. Thirteen percent of the respondent indicated they were not part of a team. The distribution of the size of teams identified by all respondents is provided in Table 1.

-Table 1-
RWSL Participant Team Size

Team Size	2007	2006	2005	2004	2003	Overall	%
2	3	3	4	5	2	17	22.37%
3-5	2	10	7	5	4	28	36.84%
6-8	11	0	0	0	0	11	14.47%
8+	8	0	1	0	1	10	13.15%
Not part of Team	1	1	4	4	0	10	13.15%
Total	25	14	16	14	7	76	100%

Background of RWSL Participants

Slightly more than 62% of the RWLS Governor's Institute respondents were career and technical education teachers and approximately 24% of the respondents were academic teachers. Less than 4% of the respondents indicated they were administrators. A complete listing of the background of all of the respondents is provided in Table 2.

-Table 2-
Background of RWSL Participants

Background	2007	2006	2005	2004	2003	Overall	%
CTC Teacher	15	10	11	10	4	50	62.50%
Academic Teacher	6	6	1	4	2	19	23.75%
Administrator	1	1	1	0	0	3	3.75%
Other	3	1	3	0	1	8	10.00%
Total	25	18	16	14	7	80	100%

Institutional Affiliation of RWSL Participants

The majority of the RWLS Governor's Institute respondents (65%) indicated they were affiliated with a career technical education center. Approximately one-forth of the respondents (24%) indicated they were affiliated with a comprehensive high school. A complete listing of the institutional affiliation of all of the respondents is provided in Table 3.

-Table 3-
Institutional Affiliation of RWSL Participants

Item	2007	2006	2005	2004	2003	Overall	%
CTC	17	11	13	6	4	51	64.56%
HS	5	6	2	5	1	19	24.05%
SCI	0	0	0	0	0	0	0.00%
Other	3	0	1	3	2	9	11.39%
Total	25	17	16	14	7	79	100%

SURVEY INSTRUMENT PART B: IMPLEMENTATION

Success in Implementation of RWSL Strategies

The vast majority of the RWLS Governor's Institute respondents (92%) indicated they had either a moderate (58%) or a high (35%) success rate in the implementation of the RWLS strategies. It should be noted that this same proportional success rate in the implementation of the RWLS strategies reported by respondents appeared to be consistent over the 5 year period that the Governor's Institutes were delivered. Only a little more than 1% of the respondents indicated they had no success in the implementation of the RWLS strategies. A complete listing of the success rate of the RWLS strategies is provided in Table 4.

-Table 4-
Success in Implementation of RWSL Strategies

Level of Success	2007	2006	2005	2004	2003	Overall	%
Low	2	1	1	1	0	5	6.41%
Moderate	10	12	7	10	6	45	57.69%
High	11	4	8	3	1	27	34.62%
None	1	0	0	0	0	1	1.28%
Total	24	17	16	14	7	78	100%

Time to Achieve Instructional Comfort Level in Delivery of RWSL Strategies

Slightly more than three-fourths of the respondents indicated it took them between 1 to 6 months to reach a comfort level for the delivery of the RWLS strategies in their instructional practice The most frequent length of time reported by almost 42% of the RWLS Governor's Institute respondents to achieve a comfort level in the delivery of the RWLS strategies in classroom practice was between 1 to 3 months. This was followed by a 4 to 6 month time period to achieve a comfort level in the classroom delivery of the RWLS strategies by almost 34% of the respondents. Almost 17% of the respondents indicated it took them more that 12 months to develop a comfort level in the delivery of the RWLS strategies in their instructional practice. A complete listing of the length of time it took for respondents to achieve an instructional delivery comfort level with the RWLS strategies with their students is provided in Table 5

-Table 5-
Time to Achieve Instructional Comfort Level in
Delivery of RWSL Strategies

Time in Months	2007	2006	2005	2004	2003	Overall	%
1-3	13	5	5	9	0	32	41.56%
4-6	7	6	7	4	2	26	33.77%
7-9	1	2	1	0	2	6	7.79%
12+	4	4	2	1	2	13	16.88%
Total	25	17	15	14	6	77	100%

Frequency of RWSL Helping Conferences

Almost one-half of the respondents (42%) indicated they provided support to their colleagues for the implementation of RWSL strategies through the use of a helping conference on a weekly (8%), monthly (16%) or bi-monthly (18%) basis. The delivery of a helping conference at a frequency of once every 4 to 6 months was reported by 32% of the respondents. Almost 27% of the respondents indicated they had never provided support to their colleagues through the use of a helping conference. A complete listing of the frequency of helping conferences provided to colleagues in support of the implementation of the RWLS strategies is provided in Table 6.

-Table 6-
Frequency of RWSL Helping Conferences

Frequency	2007	2006	2005	2004	2003	Overall	%
Weekly	4	2	0	0	0	6	7.59%
Monthly	4	4	2	2	1	13	16.45%
Once every 2 Months	7	1	4	2	0	14	17.72%
Once every 4-6 Months	7	6	4	5	3	25	31.65%
Never	3	4	6	5	3	21	26.58%
Total	25	19	16	14	7	79	100%

SURVEY INSTRUMENT PART C:
STUDENT ACHIEVEMENT

Improvement of Student Achievement due to Integration of RWSL Strategies

A large majority of the respondents (82%) indicated that there was a medium (62%) to high level (19%) of improvement of student achievement due to the integration of the RWSL strategies in their instructional practices. Slightly more than 15% of respondents indicated a low level of improvement in student achievement associated with the integration of RWSL strategies, and less than 3% of the respondents indicated no improvement in student achievement as a result of integrating RWSL strategies. A complete listing of the reported levels of student achievement associated with the implementation of RWLS strategies in classroom instructional practices is provided in Table 7.

-Table 7-
Improvement of Student Achievement due
to Integration of RWSL Strategies

Level of Student Achievement	2007	2006	2005	2004	2003	Overall	%
Low	1	3	2	3	2	11	15.28%
Medium	13	12	11	5	4	45	62.50%
High	6	2	2	4	0	14	19.44%
None	1	0	0	1	0	2	02.78%
Total	21	17	15	13	6	72	100%

Changes in Classroom Behavior Attributed to use of RWSL Strategies

Changes in classroom behavior which were attributed to the use of RWSL strategies were reported by respondents in the categories of increased reading activity (18%), increased reading comprehension (25%), increased discussion (26%) and overall increased levels of subject matter interest (20%). There was also a reported 7% drop in discipline infractions that were attributed to teacher use of the RWSL strategies the instructional process. A complete listing of the changes in student classroom behavior attributed to the use of RWSL strategies is provided in Table 8.

-Table 8-
Changes in Classroom Behavior
Attributed to use o*f* RWSL Strategies

Areas of change	2007	2006	2005	2004	2003	Overall	%
Increased Reading	8	9	9	5	1	32	18.39%
Increased Comprehension	14	6	13	9	1	43	24.71%
Increased Discussion	12	11	11	10	2	46	26.44%
Increased Interest	9	4	8	9	4	34	19.54%
Decreased Discipline Infractions	3	2	2	4	2	13	07.47%
Other	3	1	1	0	1	6	03.45%
Total	49	33	44	37	11	174	100%

Perceived Benefit to Students due to use of RWSL Strategies

A very high overall level of perceived benefit to students as a result of using RWSL strategies in their instructional practice was reported by respondents (combined level of 88%). In a disaggregated form, this benefit level was reported to have affected few students (08%), some students (33%), or most students (47%). Only slightly more than 01% of the respondents reported no student benefit as a result of using the RWSL strategies. A complete listing of the perceived benefit to students as a result of using RWSL strategies is provided in Table 9.

-Table 9-
-Table 9-
Perceived Benefit to Students due to use of RWSL Strategies

Students Benefiting	2007	2006	2005	2004	2003	Overall	%
Few	1	2	1	2	0	6	08.00%
Some	6	8	3	4	4	25	33.33%
Most	13	4	8	8	2	35	46.67%
All	2	3	3	0	0	8	10.67%
None	1	0	0	0	0	1	01.33%
Total	23	17	15	14	6	75	100%

Increased Scores on Selected Measures Attributed to the use of RWSL Strategies

Increases in student scores levels on various measures were reported by respondents that were attributed to the use of RWSL strategies on several measures. These included Pennsylvania State Student Assessment, PSSA, (16%), the student version of the National Occupational Competency Assessment NOCTI which is used as the basis for the award of Pennsylvania Skills Certificate, (11%), publisher made tests, (10%), teacher made tests, (41%), and the Pennsylvania 4-Sight Test (9%).

Slight gains (01% each) were also reported in 3 other measures, TABE, STAR and Industry Based Certification. It should be noted these very modest gains can be attributed to the very limited use of these measures which resulted on the calculation of very low percentages. It may therefore be inappropriate to cast doubt on the influence of the use of RWSL strategies may have had on the outcomes associated with these 3 measures. Further, it is possible these 3 measures will be used in greater frequency in the future. A complete listing of the score increases on selected measures attributed to the use of RWSL strategies is provided in Table 10.

-Table 10-
Increased Scores on Selected Measures
Attributed to use of RWSL Strategies

Measures	2007	2006	2005	2004	2003	Overall	%
PSSA	3	3	4	7	1	18	16.22%
NOCTI	3	3	3	3	0	12	10.81%
Publisher	3	6	0	2	0	11	09.91%
Teacher	15	10	10	7	3	45	40.54%
4 - Sight	3	0	1	5	1	10	09.00%
TABE	0	0	0	0	1	1	00.90%
STAR	0	0	0	1	0	1	00.90%
Industry Based Cert.	1	0	0	0	0	1	00.90%
Other	5	2	4	0	1	12	10.81%
Total	33	24	22	25	7	111	100%

Average Level of Influence of Reciprocal Teaching Strategies on Student RWSL Skills

There was little variation in the range of the overall responses to the level of influence the 4 categories of reciprocal teaching strategies had on the development of RWSL skills. On a 4 point scale with a low of 1 and a high of 4, the range included a low overall average rating for clarifying at 2.77 and a high average at 3.14 for the summary category of reciprocal teaching. The highest yearly average rating from the 5 year period surveyed was from the 2005 respondent group was also in the summary category, (average 3.44). A complete listing of the average ratings provided in regard to the influence that reciprocal teaching strategies had on student RWSL skills is provided in Table 11.

-Table 11-
Average Level of Influence of Reciprocal Teaching Strategies
on Student RWSL Skills (Likert Scale: Low of 1 and High of 4)

Reciprocal Teaching	2007	2006	2005	2004	2003	Overall
Prediction	3.04	2.59	2.88	2.79	3.20	2.90
Clarifying	2.81	2.76	2.88	2.64	2.80	2.77
Questioning	3.10	2.88	2.88	3.00	3.00	2.97
Summary	2.91	3.00	3.44	3.07	3.30	3.14

Based on the average overall ratings for all 5 years surveyed, the descending rank-order listing for the categories of reciprocal teaching is;

Rank Order of the 5 Year Average Ratings of Reciprocal Teaching Categories

1. Summary   (3.14)
2. Questioning   (2.97)
3. Prediction   (2.90)
4. Clarifying   (2.77)\

Average Levels of Influence of Scaffolding Strategies on Student RWSL Skills

The overall average responses to the survey questions on the influence of scaffolding strategies on student RWSL skills ranged from a low of 2.18 for R3 note taking (read, record and recite) technique to a high of 3.13 for note taking and outlining on a 4 point scale with a low of 1 and a high of 4. Although the high and low end of the range of these 2 scaffolding RWSL techniques both involve note taking, it may be speculated that the recite component of the R3 note taking technique and subsequent low level of student interest in this part of the activity may have had some influence on the low rating. A complete listing of the ratings provided in regard to the influence that scaffolding strategies had on student RWSL skills is provided in Table 12.

-Table 12-
Average Levels of Influence of Scaffolding
Strategies on Student RWSL Skills
(Likert Scale: Low of 1 & High of 4)

Scaffolds	2007	2006	2005	2004	2003	Overall
2 Minute Preview	3.13	2.75	2.87	2.43	3.20	2.88
KWL	2.64	2.69	3.19	2.29	2.60	2.68
Key Questions	3.00	3.00	2.93	2.86	3.00	2.96
Note Taking & Outlining	3.14	2.94	3.06	3.00	3.50	3.13
Concept Questions	2.21	2.13	2.12	2.69	2.80	2.39
R3 Note Taking	2.05	2.27	2.36	2.23	2.00	2.18
Think Aloud	2.00	2.50	2.87	2.54	2.80	2.54
Last Word	2.58	2.56	2.64	2.54	2.50	2.56

Based on the average overall ratings for all 5 years surveyed, the descending rank-order listing for the categories of scaffolding is;

Rank Order of the 5 Year Average Ratings of Scaffolding Categories

1. Note Taking and Outlining (3.13)
2. Key Questions (2.96)
3. 2 Minute Preview (2.88)
4. KWL (2.68)
5. Last Word (2.56)
6. Think Aloud (2.54)
7. Concept Questions (2.39)
8. R3 Note Taking (2.18)

Average Levels of Influence of Journaling Strategies on Student RWSL Skills

The overall average of responses to the survey questions on the influence of journaling strategies on student RWSL skills ranged from a low of 2.45 for raft to a high of 2.92 for directed learning on a 4 point scale with a low of 1 and a high of 4. The highest yearly average rating from the 5 year period surveyed was from the 2003 respondent group was also in the directed learning category, (average 3.60). A complete listing of the ratings provided in regard to the influence that journaling strategies had on student RWSL skills is provided in Table 13.

-Table 13-
Average Levels of Influence of Journaling
Strategies on Student RWSL Skills
(Likert Scale: Low of 1 & High of 4)

Journaling	2007	2006	2005	2004	2003	Overall
Raft	2.05	2.47	2.71	2.64	2.40	2.45
Process Log	2.40	2.60	2.43	2.46	2.80	2.54
Prediction	2.84	2.57	2.53	3.08	2.80	2.76
Write to Learn	2.47	2.27	2.80	2.50	3.00	2.61
Directed Learning	2.63	2.53	3.06	2.77	3.60	2.92
Discussion Journal	2.47	2.57	2.80	2.85	2.40	2.62
Learning Log	2.56	2.53	2.71	2.69	3.00	2.70
Reflection Journal	2.70	3.00	2.63	2.85	2.83	2.80
Prediction Reflection Journal	2.89	2.73	2.53	2.42	2.60	2.63

Based on the average overall ratings for all 5 years surveyed, the descending rank-order listing for the categories of journaling is;

Rank Order of the 5 Year Average Ratings of Journaling Categories

1. Directed Learning   (2.92)
2. Reflection Journal   (2.80)
3. Prediction   (2.76)
4. Learning Log   (2.70)
5. Prediction Reflection Journal   (2.63)
6. Discussion Journal   (2.62)
7. Write to Learn   (2.61)
8. Process Log   (2.54)
9. Raft   (2.45)

Level of Use of the RWSL Strategies or their Modification

There was an extremely high number of respondents ((97%) who indicated they were still using some of the RWSL strategies or their modification in their instructional practice; among these were approximately 26% who indicated a high level of use, 55% who indicated a moderate level of use and 16% who indicated a low level of use. Only a little more than 2% of the respondents indicated they were no longer using any of the RWSL strategies in their instructional practice. A complete listing of the levels of use of the RWSL strategies or their modifications that were in use at the time of this survey is provided in Table 14.

-Table 14-
Level of Use of the RWSL Strategies or their Modification

Level of Use	2007	2006	2005	2004	2003	Overall	%
Low	3	3	1	4	1	12	15.79%
Moderate	15	9	7	7	4	42	55.26%
High	5	4	8	2	1	20	26.32%
Not Used	1	0	0	1	0	2	02.63%
Total	24	16	16	14	6	76	100%

Length of Time to Reach Comfort Level with RWSL Strategies prior to Training Colleagues

More than one-half of the respondents indicated that it took up to 6 months for them to reach a comfort level in the use of the RWSL strategies before they began training their colleagues; 20% reached a comfort level in between 1 to 3 months and approximately 35% indicated it took them between 4 to 6 months to reach a comfort level. Approximately 11% of the respondents indicated it took them more than 12 months to reach a comfort level prior to training their colleagues. Slightly more than 25% of the respondents indicated they did not participate in training their colleagues in the use of the RWSL strategies. A complete listing of the length of time it took for respondents to reach a comfort level in the use of the RWSL strategies prior to training their colleagues is provided in Table 15.

-Table 15-
Length of Time to Reach Comfort Level with
RWSL Strategies prior to Training Colleagues

Months	2007	2006	2005	2004	2003	Overall	%
1-3	4	5	3	3	0	15	20.00%
4-6	10	4	5	7	0	26	34.67%
7-9	2	1	3	0	1	7	09.33%
12+	1	1	1	2	3	8	10.67%
Did not Train	6	4	4	3	2	19	25.33%
Total	23	15	16	15	6	75	100%

Frequency of Meetings to Train Colleagues on RWSL Strategies

The most often reported frequency, (66%), that RWSL training sessions were provided to colleagues was reported to have occurred between 1 and 5 times: approximately 30% of the respondents reported providing training between 1 and 3 training sessions, and 36% reported providing training sessions between 3 and 5 to their colleagues. Twelve percent indicated that they met with their colleagues more than 6 times to provide RWSL training, while slightly more than 21% indicated they never provided any RWSL training to their colleagues. A complete listing of the frequency with which respondents provided RWSL training sessions to their colleagues is provided in Table 16.

-Table 16-
Frequency of Meetings to Train
Colleagues on RWSL Strategies

Frequency	2007	2006	2005	2004	2003	Overall	%
1-2	6	4	6	5	1	22	29.73%
3-5	9	6	5	4	3	27	36.49%
6+	5	1	1	2	0	9	12.16%
Never	3	4	4	3	2	16	21.62%
Total	23	15	16	14	6	74	100%

Level of Administrative Support for the Implementation of RWSL Strategies

More than 86% of the respondents indicated they received administrative support for the implementation of the RWSL strategies; 26% indicted a low level of support, almost 32 % indicated a moderate level of support, and almost 29 % of the respondents indicated a high level of support. Slightly more than 13% of the respondents indicated they received no administrative support in the implementation of the RWSL strategies. A complete listing of the levels of administrative support provided for the implementation of the RWSL strategies is provided in Table 17.

-Table 17-
Level of Administrative Support
for Implementation of RWSL Strategies

Level of Support	2007	2006	2005	2004	2003	Overall	%
Low	3	4	7	4	2	20	26.32%
Moderate	7	5	7	3	2	24	31.58%
High	11	4	2	4	1	22	28.95%
None	3	3	0	3	1	10	13.16%
Total	24	16	16	14	6	76	100%

Type of Administrative Support for the Implementation of RWLS Strategies

A total of 43% of the respondents reported that dedicated time was provided by administration in support of the implementation of RWLS strategies; this included in-service professional development days (22%), faculty meetings (14%).and in the area of helping conferences (7%). All three of these time related support areas link closely to the train-the-trainer concept which was incorporated into the design and delivery of all of the RWSL Governor's Institutes delivered between 2003 through 2007. Logistical support was also provided through materials and supplies as reported by almost 17% of the respondents and in the form of duplication services as reported by 11% of the respondents. It was also reported by almost 14% of the respondents that teachers were given the option of participating in in-service activities associated with the implementation of RWSL strategies while 14% reported that teachers were required to participate. A complete listing of the types of administrative support provided for the implementation of the RWSL strategies is provided in Table 18.

-Table 18-
Type of Administrative Support for
Implementation of RWSL Strategies

Type of Support	2007	2006	2005	2004	2003	Overall	%
Faculty Meetings	8	5	5	4	2	24	14.29%
In- Service Days	14	8	4	7	4	37	22.02%
Time for Helping Conferences	3	4	3	0	1	11	06.55%
Teacher Participation Option	11	5	6	1	0	23	13.69%
Teacher Participation Required	3	2	4	2	1	12	07.14%
Duplication Service	6	7	1	3	2	19	11.31%
Materials & Supplies	9	8	3	5	3	28	16.67%
Other	4	4	3	2	1	14	08.33%
Total	58	43	29	24	14	168	100%

INTERVIEWS

A series of telephone interviews were conducted with three of the six individuals who volunteered to participate as a follow-up to this survey activity. The three individuals who had volunteered to be interviewed who later declined were unavailable due to scheduling difficulties. The questions used in the interviews were developed following a review of the data collected in this survey activity and were designed to further explore areas that required more in-depth understanding. All individuals who were interviewed were asked the same questions and in the same order. The questions and a summary of the responses follow, each respondent is identified by a numerical designation:

1. How are you and your colleagues still using the RWSL strategies that you learned at the Governors Institute? What is your favorite RWSL strategy and why?

2. What modifications have you or your colleagues made to any of the RWSL strategies that you learned at the Governor's Institute?

3. Describe the overall impact your use of the RWSL strategies have had on your students? Please provide an example(s) that your use of the RWSL strategies may have affected some of your individual students.

4. How has your school administration provided support for the implementation and use of the RWSL strategies? Has this been adequate? If not, what would you recommend to make it better?

5. Does your school monitor student reading levels that may have changed due to teacher use of RWSL strategies? If so, what changes have been reported? Would it be possible to share any documentation or reports as a component of this study?

6. Is there any thing else you wish to share in regard to your involvement with the RWSL strategies?

Question 1: How are you and your colleagues still using the RWSL strategies that you learned at the Governors Institute? What is your favorite RWSL strategy and why?

R1. We continue to model and encourage the use of the RWSL strategies. KWL is the favorite. It is easy to show and easy for new teachers to try. It can be used at the beginning of a lesson as part of the introduction and at the end of the lesson as part of the summary.

R2. One of our colleagues went to Millersville to earn a Master's degree in Technical Education with her primary research focus on reading strategies. She went on to development her own reading strategies. Her big issue was getting students to read directions and check for understanding before using, for example, a power saw. She developed a reading strategy for linear directions using prediction, rewording, clarifying, and requiring students to think anything about anything else he/she needs to know before starting a task. Students are encouraged to ask questions before moving to machinery. Why? Students need to feel safe. They then reflect after the lesson.

R3. I, and some other members of our team still use some of the RWSL strategies. It's been difficult because we've had little follow-up directly related to the Institute; however, the school as a whole has had professional development on strategies that we already learned at the Institute and this was helpful in reinforcing their effectiveness in our lessons. I use KWL, Journaling, and Making Predictions. Why? I like KWL and Making Predictions best because it helps me determine where the students are and where they need to be.

Since the Institute, Northeast High School has been labeled an "Empowerment" school. With this, we have no control over the content of professional development; the Central Office now dictates this. Therefore, our team has had little time to discuss strategies, what works, what doesn't work, what needs improvement. This has been disheartening to the attendees since the Institute and the momentum with which we returned that summer was lost. However, with the training we've had at the Institute, we are armed with strategies to incorporate for next year (2009-2010); further, we are now a part of the International Center for Leadership in Education (ICLE – Bill Daggett group), so next year there we be a huge shift in how the school operates. We will operate as small schools within a school and our CTE program will be just one of the schools. We will have daily common planning time together and with this, we will be reinstituting much of what we learned at both Governor's Institutes in 2007.

Question 2: What modifications have you or your colleagues made to any of the RWSL strategies that you learned at the Governor's Institute?

R1. We have used student involvement throughout the entire process.

R2. They need to describe what an illustration is saying. Teaching materials have low-frequency vocabulary and do not reinforce. I have done research on vocabulary acquisition. Words the students are expected to know are posted on the wall.

R3. I can't say that this is a conscious effort because as I said, we've had little time to meet. However, much of the district-led professional development we've had is related to what we learned at the Governors Institute and we felt we were a bit ahead of the game. From discussing this with others, some teachers mix and match strategies.

Question 3: Describe the overall impact your use of the RWSL strategies have had on your students? Please provide an example(s) that your use of the RWSL strategies may have affected some of your individual students.

R1. We have witnessed increased enthusiasm and excitement in all classes. There have been many examples of increased student interest.

R2. The students pick definitions in a dictionary and learn how they are used in this specific class. An example is "finishing" means final coat, not "get it done." She has them find personal cues such as pillow for "cumulative clouds," etc.

R3. I don't think I can provide a single example. It's not just these strategies that help the student; it's more of a holistic approach. We're now a Tech Prep program, so we've been taking advantage of college mentors that are assigned to us and we've been collecting data from the

Community College of Philadelphia pre-assessment and placement tests and now have our first year of NOCTI data. We really need to know where we are before we can establish where we need to be and the effectiveness of our strategies.

Question 4: How has your school administration provided support for the implementation and use of the RWSL strategies? Has this been adequate? If not, what would you recommend to make it better?

R1. Yes. They have been very supportive. We assist experienced and new teachers in modeling the strategies. The administration provides for workshops and other training.

R2. The students pick definitions in a dictionary and learn how they are used in this specific class. An example is "finishing" means final coat, not "get it done." She has them find personal cues such as pillow for "cumulative clouds," etc.

R3. Although the school had good intentions to support our group, this was superseded by the district's plan. Although much of the professional development was related, we had no allotted time for follow-up. a. Has this been adequate? No. If not, what would you recommend to make it better? We need the common planning time that we will have next school year.

Question 5: Does your school monitor student reading levels that may have changed due to teacher use of RWSL strategies? If so, what changes have been reported? Would it be possible to share any documentation or reports as a component of this study?

R1. There is benchmark testing, but I do not have the records. (Suggested contacting Elsie Bell)

R2. Supplies are there, dictionaries, etc. Has this been adequate? So far it has been. If not, what would you recommend to make it better? This is an impossible situation due to this being an overcrowded district.

R3. Not really. Reading does not count towards PSSA. The emphasis now is on writing. The focus is now on literacy - if you can write well and know how to answer the questions. Based on Brockton, MA who made AYP in a couple of years. Using reading prompts from PSSA, creating a year-long schedule in academic subjects. Each week a content area will only do writing for that week. We will rotate around the year. We will develop materials for use by non-English teachers. Uses ID, explain, analyze, etc. Developed a template based on reading and turning prompts around and explain answer. Math will be open-response questions. Looking at rubrics for PSSA and how they are scored.

Again, our momentum was impeded. When we first returned from the Institute, we acquired funding and implemented online 4-Sight testing of all of our students to establish a baseline. Dr. Bolger managed this aspect and had most all of the CTE students tested so that we could then determine with data as to whether our strategies were working. However, the district cancelled the funding for 4-Sight the year following (this school year) and we had no means to measure with data. Although I can't speak for all of the teachers, I'd have to say we do not have enough data to determine this.

Question 6: Is there any thing else you wish to share in regard to your involvement with the RWSL strategies?

R1. Yes. Please bring the RSWL Governors Institute back!!

R2. The RSWL Governors Institute was a life-changing week. It was a springboard in helping me with my students. With the information garnered at the Institute, I figured out a way to help them retain what they read. It changed the way I teach and the way my students learned. It changed the way I teach and the way the students learn in the lab. The Institute was a life changing week

R3. Two of our team members, and myself are members of a small group of concerned teachers at Northeast called the "Think Tank" and we have been developing a "writing across all curriculum", a school-wide initiative for next year. I believe strongly that our participation in the Governor's Institutes has had a great influence on our participation and what we bring to the table for this initiative.

Summary, Conclusion, and Recommendations

The reading instructional materials used in the delivery of 5 Governors Institutes on Integrating the Pennsylvania Standards on Reading, Writing, and Speaking and Listening were developed in response to a concern with the low reading skills of many Career and Technical Education (CTE) students. Further, the reading strategies incorporated in these materials were selected for their proven effectiveness with students from a variety of backgrounds, and in particular, with students in selected CTE programs in Pennsylvania through a research and development project conducted by the Temple University Center for Professional Development in Career and Technical Education funded by the Pennsylvania State Department of Education, Bureau of Career and Technical Education, (Wichowski & Garnes, 2003-04).

A Facilitators Guide was developed by the Center for Professional Development in Career and Technical Education to support a train–the–trainers model to support the integration of reading strategies in CTC classrooms, (Garnes and Wichowski,2001). The strategies included in these instructional materials are divided into 3 major categories; Reciprocal Teaching, Scaffolding, and Journaling. Each of the Guidebooks for Facilitators includes the following, (1) Power Point Presentation, (2) List of Materials, (3) Facilitator Instructions, (4) Participant Instructions, (5) Facilitator Readings, and (6) Handouts for the Delivery of the Presentation. The Power Point presentation for each of the strategies is on a CD ROM provided with the instructional materials notebook. This Facilitators Guide served as the instructional core for Governors Institutes between 2003 and 2007.

Although each Governors Institute was evaluated extensively throughout the week of the institute and through a series of six month follow-up evaluations which were highly positive, there are several extended term research questions that were answered in this investigation. These included:

1. Who were the respondents to this survey?

2. Which reading strategies from the Governor's Institute have been adopted on a long term basis?

3. Which reading strategies are used most frequently?

4. What delivery model was used for the training of other teachers in the use of the reading strategies?

5. How frequently were helping conferences or small group support discussions held during the implementation of the reading strategies?

6. How many applications of a reading strategy did it take to develop a high level instructional comfort?

7. What changes were noted in student classroom behavior that could be attributed to the use of reading strategies in the instructional process?

8. In what way were the reading strategies from the Governors Institute modified?

9. How did the implementation of the reading strategies impact on the reading ability of CTC students as measured by:

   f.   PSSA test scores

   g.   publisher made tests

   h.   student NOCTI tests

   i.   teacher made content tests

   j.   independent measures

The following summary statements have been made in regard to the major areas examined in this research activity.

Success in Implementation of RWSL Strategies

The vast majority of the RWLS Governor's Institute respondents (92%) indicated they had either a moderate (58%) or a high (35%) success rate in the implementation of the RWLS strategies. It should be noted that this same proportional success rate in the implementation of the RWLS strategies reported by respondents appeared to be consistent over the 5 year period that the Governor's Institutes were delivered. Only a little more than 1% of the respondents indicated they had no success in the implementation of the RWLS strategies

Improvement of Student Achievement due to Integration of RWSL Strategies

A large majority of the respondents (82%) indicated that there was a medium (62%) to high level (19%) of improvement of student achievement due to the integration of the RWSL strategies in their instructional practices. Slightly more than 15% of respondents indicated a low level of improvement in student achievement associated with the integration of RWSL strategies, and less than 3% of the respondents indicated no improvement in student achievement as a result of integrating RWSL strategies.

Changes in Classroom Behavior Attributed to use of RWSL Strategies

Changes in classroom behavior which were attributed to the use of RWSL strategies were reported by respondents in the categories of increased reading (18%), increased comprehension (25%), increased discussion (26%) and overall increased levels of subject matter interest (20%). There was also a reported 7% drop in discipline infractions that were attributed to teacher use of the RWSL strategies the instructional process.

Perceived Benefit to Students due to use of RWSL Strategies

A very high overall level of perceived benefit to students as a result of using RWSL strategies in their instructional practice was reported by respondents (combined level of 88%). In a disaggregated form, this benefit level was reported to have affected few students (08%), some students (33%), or most students (47%). Only slightly more than 01% of the respondents reported no student benefit as a result of using the RWSL strategies.

Increased Scores on Selected Measures Attributed to the use of RWSL Strategies

Increases in student scores levels on various measures were reported by respondents that were attributed to the use of RWSL strategies on several measures. These included Pennsylvania State Student Assessment PSSA, (16%), the student version of the National Occupational Competency Assessment NOCTI which is used as the basis for the award of Pennsylvania Skills Certificate, (11%), publisher made tests, (10%), teacher made tests, (41%), and the Pennsylvania 4-Sight Test (9%).

Conclusions

Based on the data collected and interviews conducted, the following conclusions have been made in regard to the integration of the RWSL strategies into their instructional practices as reported by the respondents in this research:

1. There was a very high level of successful reading strategy adoption by teachers, (92%), over the six year time period measured.

2. There were large gains in student achievement reported by most respondents, (82%).

3. There were increases in student comprehension, (25%), increased classroom discussion, (26%), and increased interest in subject matter, (20%) reported by respondents.

4. There was an overall very high level reported benefit to students, (88%).

5. There were reported increases in student achievement on PSSA tests,(16%), and teacher made tests, (41%).

6. There was a high level of administrative support provided to teachers to aid in the implementation of the strategies, (86%).

Recommendations

The following recommendations have been made as a result of the data collected and interviews conducted in this study:

1. Provide funding to revise and update the RWSL train-the-trainer instructional materials to support the delivery of a series professional development webinars

2. Provide funding to Professional development activities be provided to train CTE teachers in the use of the RWSL strategies in the form of a series of webinars.

3. Provide funding to support professional development activities to CTE administrators on supportive actions necessary to optimize the implementation of the RWSL strategies through a series of webinars.

Bibliography

Garnes, D. & Wichowski, C. (2001). Facilitator Guidebook for Reading Strategy Workshops in Reciprocal Teaching, Scaffolding and Journaling. Temple University, Philadelphia PA.

Heverly, M.. (2004, 2005, 2006, 2007, 2008) Governor's Institute Evaluation Report on Integrating the Pennsylvania Academic Standards for Reading, Writing, Speaking and Listening (RWSL) in Career & Technical Education. Temple University, Philadelphia PA.

National Institute for Literacy.(1999).Washington D.C.

APPENDIX A

SURVEY INSTRUMENT

FOLLOW-UP SURVEY

2007- GOVERNOR'S INSTITUTE FOR
INTEGRATING THE PA ACADEMIC STANDARDS FOR READING, WRITING, SPEAKING AND LISTENING (RWSL)

Introduction:

You participated in the Governor's Institute on Reading, Writing, Listening and Speaking (RWSL) in 2007. The purpose of this follow-up survey is to determine the extent you have: a) implemented the RWSL strategies on which you received training at the Institute, b) been able to observe/measure improved student achievement, and/or c) trained/supported colleagues to implement the RWSL strategies.

Please respond to the following questions by selecting the letter corresponding to your answer.

PART A: BACKGROUND:

1. I participated in the Governor's Institute as a team member:

   a. of 2 persons
   b. of 3-5 persons
   c. of 6-8 persons
   d. More than 8 persons
   e. I was not part of a team

2. I am a:

   a. Career and Technical Education Teacher
   b. Academic Teacher
   c. Administrator
   d. Other (please specify):_____

3. I work in a/an:

   a. Area Career Technical Center
   b. Comprehensive High School
   c. State Correctional Institution
   d. Other (please specify):_____

PART B: IMPLEMENTATION

1. To what extent were you successful in integrating the RWSL strategies you learned at the Governor's Institute into your instructional practice?

   a. Low level of success
   b. Moderate level of success
   c. High level of success
   d. No success

2. How long did it take you to reach a comfort level with the delivery of the RWSL strategies in your instructional practices?

   a. 1 – 3 months
   b. 4 – 6 months
   c. 7 – 9 months
   d. More than 12 months

3. How frequently did you participate in helping conferences or small group support discussions during the implementation of the RWSL strategies into your instructional practices?

   a. Once a week
   b. Once a month
   c. Once every 2 months
   d. Once every 4-6 months
   e. Never

PART C: STUDENT ACHIEVEMENT

4. What level of success did you have in improving student achievement as a result of integrating RWSL strategies into your instructional practices?

   a. Low level of success
   b. Moderate level of success
   c. High level of success
   d. No success

5. What changes in student classroom behavior did you note that could be attributed to the use of RWSL strategies in your instructional practices? (select all that apply)

   a. Increased levels of reading participation
   b. Increased levels of reading comprehension
   c. Increased levels of class discussion
   d. Increased levels of subject matter interest
   e. Decreased levels of discipline infractions
   f. Other: (please describe)_____

6. The use of the RWSL strategies in my instructional practices was beneficial to:

   a. Few of my students
   b. Some of my students
   c. Most of my students
   d. All of my students
   e. None of my students

7. Were there any increases in scores on any of the following measures that could be attributed to the use of RWSL strategies in your class/school? (select all that apply)

   a. PSSA
   b. SOCT/NOCTI
   c. Publisher made tests
   d. Teacher made tests
   e. PA 4 Sight Benchmark Assessments
   f. Tests of Adult Basic Education (TABE)

g. Standardized Testing and Reporting (STAR)

h. Industry – based certificates such as NIMS, AWS, etc (please list)_____

i. Other measures (please describe):_____

8. Using the scale provided, **rate each RWSL strategy listed below in regard to the contribution it has made to your success in helping students increase their RWSL skills.** Select the number or symbol that corresponds to your answer.

READING STRATEGY	Not Applicable did not use this strategy	Don't know, unable to judge	No contribution	A small contribution	A moderate contribution	A large contribution
Reciprocal Teaching using:						
11a. Prediction strategy	0	?	1	2	3	4
11b. Clarifying strategy	0	?	1	2	3	4
11c. Questioning strategy	0	?	1	2	3	4
11d Summarizing strategy	0	?	1	2	3	4
Scaffolding Strategies using:						
11e.Two minute preview	0	?	1	2	3	4
11f. The K-W-L chart	0	?	1	2	3	4
11g. Key questions	0	?	1	2	3	4
11h. Note-taking/outlining	0	?	1	2	3	4
11i. Concept question chains	0	?	1	2	3	4
11j. Note taking with the R3	0	?	1	2	3	4
11k. Think aloud strategy	0	?	1	2	3	4
11l. The last word guide	0	?	1	2	3	4
Journaling Strategies using:						
11m.RAFT guidelines	0	?	1	2	3	4
11n. The process log	0	?	1	2	3	4
11o. The prediction journal	0	?	1	2	3	4
11p. The writing to learn guide	0	?	1	2	3	4
11q. Directed teaching activity	0	?	1	2	3	4
11r. The discussion journal	0	?	1	2	3	4
11s. The learning logs	0	?	1	2	3	4
11t. The reflection journal	0	?	1	2	3	4
11u. The prediction/reflection journal	0	?	1	2	3	4

9. **Please describe any modifications** you may have made to any of the above listed RWSL strategies to make them more effective for you and/or your students.

PART D: WORK WITH COLLEAGUES

10. How long did it take you to reach a comfort level with the RWSL strategies before you began training and/or supporting your colleagues?

    a. 1 – 3 months
    b. 4 – 6 months
    c. 7 – 9 months
    d. More than 1 year
    e. I did not train/support my colleagues in the use of RWSL strategies

11. How often did you meet to train and/or support your colleagues in using the RWSL strategies?

    a. Once or twice
    b. 3 – 5 times
    c. 6 or more times
    d. Never

15. What level of administrative support was provided to aid in the implementation of the RWSL strategies at your school?

    a. Low level of support
    b. Moderate level of support
    c. High level of support
    d. No support provided

16. What type of administrative support was provided to aid in the implementation of the RWSL strategies at your school? (select all that apply)

    a. Time was provided at faculty meetings
    b. Time was provided at in-service professional development days
    c. There was release time provided for helping conferences
    d. Teachers were provided the option to participate in RWSL training
    e. Teachers were required to participate in RWSL training
    f. Duplication services were available
    g. Materials & supplies were available
    h. Other: - please explain: _____

comments:

Thank you for completing this survey!