Impact of Professional Development on Classroom Implementation of Strategic and Interactive Writing Instruction (SIWI)

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Presentation Framework

• Review effective approaches to PD
• Review what we know about SIWI
• Description of our SIWI PD
• Purpose of our study
• How we gathered our data
• Analysis of data
• Findings and implications
Professional Development as a Process

• PD cannot be “one-shot” services
  – (Gersten & Dimino, 2001
  – Doppelt, Schunn, Silk, Mehalik, Reynolds & Ward, 2009
Teachers Stepping into Instructional Role

• Professional Development
  – A participatory model
  – Situated learning leads to problem solving implementation issues and internalizing
    • (Doppelt, Schunn, Silk, Mehalik, Reynolds & Ward, 2009)
Collect Data

• **Opportunity to incorporate feedback on impact of initiative**
  – NGA Center for Best Practices, October 2009
  – A move away from teacher’s subjective perception of usefulness
    • *Doppelt, Schunn, Silk, Mehalik, Reynolds & Ward, 2009*
  – Witnessing effect of change and making direct link between new teaching practice and student performance motivates teachers
    • *Gersten & Dimino, 2001; Short, Echevarria and Richards-Tutor, 2011*

• **Self-Assessment**
  – Formal: Levels of Use [LoU] provides valid meta-cognitive insights
    • *Baker and Smith, 2000; Easterbook, Stephenson & Gale, 2009; Short, Echevarria & Richards-Tutor, 2011*
Peer Collaboration & School-Wide Support

• Opportunity to be observed, assessed, and to reflect in a collaborative community
  – Role of coaches, mentor teachers and peers as part of a professional learning community
    • (Pella, 2011; Vasumathi, 2010)
Use of Video Technology

• Stepping out of instructional role for reflection results in greater investment toward adoption and maintenance
  • Gersten & Dimino, 2001
  – “Observing models and cases”

- Strategic
- Interactive
- Authentic
- Balanced
- Visual Scaffolds
- Guided to Independent
- Metalinguistic & Linguistic
Theoretical Influence: Strategic

Cognitive Theories of Composing

Strategy Instruction in Writing

Explicitly Teach Processes of Expert Writers

Procedural Facilitators

(Applebee, 2000; Flower & Hayes, 1980; Scardamalia & Bereiter, 1986)

(Graham, 2006)
Theoretical Influence: Interactive Sociocultural Theories of Teaching/Learning


Interactive Writing

Apprenticeship in Writing (Englert & Dunsmore, 2002; Englert, Mariage, & Dunsmore, 2006; Mariage, 2001)
Guided Writing

Independent Writing

Shared Writing
Theoretical Influence: Metalinguistic & Linguistic

Explicit Instruction and Implicit Competence Necessary for L2

L2 Theories

Metalinguistic & Linguistic

(Bialystok, 2001; Ellis, 1994; Ellis & Laporte, 1997; Krashen, 1994; Paradis, n.d.)

(Wolbers, 2008, 2010)
SIWI Information and Efficacy

• SIWI has a **significant** impact on:
  – Discourse-, sentence-, & word-level writing skills
  – text length
  – editing/revising skills
  – word identification ability

• Students demonstrate greater independence with writing English over time

• Language delayed students make expressive and receptive language gains
SIWI PD Sessions

• Funded by THEC, 2009-2012
• Week long summer workshop
  – Large group, small group, combined cohort sessions, discussion, hands on activities and practice, video examples, brain gym
  – SIWI in a variety of classroom contexts (e.g., by language mode, grade, academic content)
• Fall site visits to support implementation
• Optional graduate class in the fall
# 2010 Hands-on SIWI Practice

<table>
<thead>
<tr>
<th>Year 1 Participants</th>
<th>Year 2 Participants</th>
</tr>
</thead>
<tbody>
<tr>
<td>Personal narrative implementation w/ students</td>
<td>Explanation paper w/ mock implementation</td>
</tr>
<tr>
<td>Group planning &amp; implementation w/ turn taking</td>
<td>Student activity w/ thoughtful language exposure</td>
</tr>
<tr>
<td>Supported by team leader</td>
<td>Group planning, construction of materials &amp; implementation w/ turn taking</td>
</tr>
<tr>
<td>Review &amp; reflection, self-evaluation tool</td>
<td>Review &amp; reflection, self-evaluation tool</td>
</tr>
<tr>
<td>Actual publication</td>
<td></td>
</tr>
</tbody>
</table>
2011 Cohort 2 Project Guidelines

- **Year-long plan based on content expectations**
- A set of objectives to start the year
  - balanced, inclusive of individual
- 2 writing projects
  - one short-term
  - one long-term
    - Plan how publish and share with authentic audience
- Physical layout
- POSTER materials
  - adapted for specific contexts
- Plan for introducing SIWI/ POSTER to class
- Plan for transitioning from Guided to Shared to Ind. writing
- Visual Scaffold
- NIP-it lesson
2010 Participant Feedback  (26 responded)

• 16/16 first year participants found the information to be useful and were pleased with the workshop

• 23/26 said they plan to implement SIWI in the fall, 2 do not have teaching placements

• 26/26 indicated they were somewhat ready to very ready to implement
2011 Participant Feedback (29 responded)

• 19/19 first year participants found the information to be useful and were pleased with the workshop

• 15/19 first year participants said new information was the use of an ASL/English board

• 29/29 said they plan to implement SIWI in the fall

• 29/29 indicated they were *somewhat ready* to *very ready* to implement
Classroom Visits

• Teacher implementation of SIWI
  • Observation & evaluation
  • Conferencing
• Co-implementation of SIWI
  • Conferencing
• Model Lesson
  • Q/A
• Planning Meeting
### 2010 Participants n=29

<table>
<thead>
<tr>
<th>School Setting</th>
<th>Level and Content</th>
<th>Position</th>
<th>Modes and Methods</th>
<th>Years Working</th>
<th>2nd Year Participants</th>
</tr>
</thead>
<tbody>
<tr>
<td>Public</td>
<td>•All grades</td>
<td>•Classroom</td>
<td>•TC</td>
<td>•1 to 35</td>
<td>•14/29</td>
</tr>
<tr>
<td>Residential</td>
<td>•Speech</td>
<td>•Itinerant</td>
<td>•Oral</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>•All content areas</td>
<td>•SLP</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>
2011 Participants $n=34$

<table>
<thead>
<tr>
<th>School Setting</th>
<th>Level and Content</th>
<th>Position</th>
<th>Modes and Methods</th>
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<td>• Speech</td>
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</tr>
<tr>
<td></td>
<td>• All content areas</td>
<td>• SLP</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>


Purpose

• to learn about the extent to which teachers implement Strategic and Interactive Writing Instruction in the classroom
  – analysis of 2 years of data
Data Collection & Analysis

• *Classroom Observations & Evaluations*
  • Fidelity Rubric
  • 27 Instructional Principles

• *On-site Conferencing*

• *Levels of Use of Innovation (LoU)*
Observation and SIWI Fidelity Instrument

Ratings: SD-Strongly Agree; D-Disagree; A-Agree; SA-Strongly Agree

Strategic Writing Instruction & Procedural Facilitators
1. Skills and strategies are taught in the context of producing text.
   SD     D     A     SA

2. The teacher utilizes symbolic tools or visual scaffolds to represent particular notions or teach writing strategies, skills or content. (e.g., diagrams, different colors).
   SD     D     A     SA

3. When teaching a strategy (i.e., mnemonic or routine), the teacher first develops background knowledge and teaches necessary vocabulary words.
   SD     D     A     SA

4. Supports such as mnemonics are a temporary scaffold, and students use them less and less over time.
   SD     D     A     SA

5. The teacher discusses or thinks-aloud how strategies may be used with other text structures or writing activities – she models how to generalize.
   SD     D     A     SA

Interactive Writing Instruction & Apprenticeship
6. Students are invited to participate in the construction of text.
   SD     D     A     SA

7. The teacher allows enough wait time for students to think and come up with ideas before stepping in.
   SD     D     A     SA
### Observation and SIWI Fidelity Instrument, 2011

<table>
<thead>
<tr>
<th>Fidelity Instrument</th>
<th>Cohort 1 &amp; 2 (n=19/34)</th>
<th>Cohort 1 (n=13/21)</th>
<th>Cohort 2 (n=6/13)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cohort 1 &amp; 2</td>
<td>3.1</td>
<td>3.0</td>
<td>3.1</td>
</tr>
<tr>
<td>Cohort 1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cohort 2</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Instructional Principles</th>
<th>Cohort 1 &amp; 2</th>
<th>Cohort 1</th>
<th>Cohort 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Procedural Facilitator</td>
<td>3.2</td>
<td>3.1</td>
<td>3.4</td>
</tr>
<tr>
<td>Apprenticeship</td>
<td>3.0</td>
<td>3.0</td>
<td>3.1</td>
</tr>
<tr>
<td>Building Metaling. Knowledge</td>
<td>2.6</td>
<td>2.6</td>
<td>2.6</td>
</tr>
<tr>
<td>Curriculum &amp; Content</td>
<td>3.3</td>
<td>3.3</td>
<td>3.4</td>
</tr>
<tr>
<td>Instructional Procedures</td>
<td>3.4</td>
<td>3.5</td>
<td>3.2</td>
</tr>
<tr>
<td>Audience</td>
<td>2.3</td>
<td>2.3</td>
<td>2.3</td>
</tr>
<tr>
<td>Instructional Principles</td>
<td>2010 (n=14)</td>
<td>2011 (n=19)</td>
<td>Difference</td>
</tr>
<tr>
<td>------------------------------------------</td>
<td>-------------</td>
<td>-------------</td>
<td>------------</td>
</tr>
<tr>
<td>Overall</td>
<td>2.9</td>
<td>3.1</td>
<td>+0.2</td>
</tr>
<tr>
<td>Procedural Facilitator</td>
<td>2.7</td>
<td>3.2</td>
<td>+0.5</td>
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<tr>
<td>Apprenticeship</td>
<td>3.0</td>
<td>3.0</td>
<td>0</td>
</tr>
<tr>
<td>Building Metaling. Knowledge</td>
<td>2.5</td>
<td>2.6</td>
<td>-0.1</td>
</tr>
<tr>
<td>Curriculum &amp; Content</td>
<td>3.4</td>
<td>3.3</td>
<td>-0.1</td>
</tr>
<tr>
<td>Instructional Procedures</td>
<td>3.2</td>
<td>3.4</td>
<td>-0.1</td>
</tr>
<tr>
<td>Audience</td>
<td>2.7</td>
<td>2.3</td>
<td>-0.4</td>
</tr>
</tbody>
</table>
LoU

• Levels of Use of the Innovation (LoU) tool (Loucks, Newlove, & Hall, 1998) is an interview tool developed to determine levels of use of an innovation and levels of concern about using the innovation.

• Participants receive a score based on their answers for levels of concern about using the innovation and a score for each category of use. The scores range from 1-5.

• We interviewed and collected data from
  – 17 of our 29 participants in 2010
  – 20 of our 34 participants in 2011
## Levels of Use

### Scale Point Definitions of the Levels of Use of the Innovation

Levels of Use are distinct states that represent observably different types of behavior and patterns of innovation use as exhibited by individuals and groups. These levels characterize a user's development in acquiring new skills and varying use of the innovation. Each level encompasses a range of behaviors, but is limited by a set of identifiable Decision Points. For descriptive purposes, each level is defined by seven categories.

### Levels of Use

<table>
<thead>
<tr>
<th>Level</th>
<th>Description</th>
<th>Knowledge</th>
<th>Acquiring Information</th>
<th>Sharing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Level 0</td>
<td>NON-USE: State in which the user has little or no knowledge of the innovation, no involvement with the innovation, and is doing nothing toward becoming involved.</td>
<td>Knows nothing about this or similar innovations or has only very limited general knowledge of efforts to develop innovations in the area.</td>
<td>Takes little or no action to solicit information beyond reviewing descriptive information about this or similar innovations when it happens to come to personal attention.</td>
<td>Is not communicating with others about the innovation beyond possibly acknowledging that the innovation exists.</td>
</tr>
<tr>
<td>DECISION POINT A</td>
<td>Takes action to learn more detailed information about the innovation.</td>
<td>Seeks descriptive material about the innovation such as origin, characteristics, and implementation requirements.</td>
<td>Seeks information and resources specifically related to preparation for use of the innovation in own setting.</td>
<td>Discusses resources needed for initial use of the innovation with others in preparation for first use.</td>
</tr>
<tr>
<td>Level I</td>
<td>ORIENTATION: State in which the user has acquired or is acquiring information about the innovation and/or has explored or is exploring its value orientation and its demands upon user and user system.</td>
<td>Knows general information about the innovation such as origin, characteristics, and implementation requirements.</td>
<td>Seeks opinions and knowledge of others through discussions, visits, or workshops.</td>
<td>Discusses the innovation in general terms and/or exchanges descriptive information, materials, or ideas about the innovation and possible implications of its use.</td>
</tr>
<tr>
<td>DECISION POINT B</td>
<td>Makes a decision to use the innovation by establishing a time to begin.</td>
<td>Seeks descriptive material about the innovation such as origin, characteristics, and implementation requirements.</td>
<td>Seeks information and resources specifically related to preparation for use of the innovation in own setting.</td>
<td>Discusses resources needed for initial use of the innovation with others in preparation for first use.</td>
</tr>
<tr>
<td>Level II</td>
<td>PREPARATION: State in which the user is preparing for first use of the innovation.</td>
<td>Knows logistical requirements, necessary resources and timing for initial use of the innovation, and details of initial experiences for clients.</td>
<td>Seeks information and resources specifically related to preparation for use of the innovation in own setting.</td>
<td>Discusses resources needed for initial use of the innovation with others in preparation for first use.</td>
</tr>
<tr>
<td>DECISION POINT C</td>
<td>Begins first use of the innovation.</td>
<td>Seeks descriptive material about the innovation such as origin, characteristics, and implementation requirements.</td>
<td>Seeks opinions and knowledge of others through discussions, visits, or workshops.</td>
<td>Discusses the innovation in general terms and/or exchanges descriptive information, materials, or ideas about the innovation and possible implications of its use.</td>
</tr>
<tr>
<td>Level III</td>
<td></td>
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</table>
## LoU Scores
### cohort 1 & 2 for years 2010 & 2011

<table>
<thead>
<tr>
<th></th>
<th>Averages 2010 (n=17)</th>
<th>Averages 2011 (n=20)</th>
<th>Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Level of Use</td>
<td>3.6</td>
<td>4.0</td>
<td>+.4</td>
</tr>
<tr>
<td>Knowledge</td>
<td>3.9</td>
<td>3.7</td>
<td></td>
</tr>
<tr>
<td>Acquiring Information</td>
<td>3.5</td>
<td>4.0</td>
<td>+.5</td>
</tr>
<tr>
<td>Sharing</td>
<td>3.5</td>
<td>3.8</td>
<td></td>
</tr>
<tr>
<td>Assessing</td>
<td>3.4</td>
<td>3.7</td>
<td></td>
</tr>
<tr>
<td>Planning</td>
<td>3.4</td>
<td>3.9</td>
<td>+.5</td>
</tr>
<tr>
<td>Status Reporting</td>
<td>3.4</td>
<td>4.1</td>
<td>+.7</td>
</tr>
<tr>
<td>Performing</td>
<td>3.4</td>
<td>3.9</td>
<td>+.5</td>
</tr>
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</table>
## LoU Scores
### cohort 1 for years 2010 & 2011

<table>
<thead>
<tr>
<th>Area</th>
<th>Averages 2010 (n=10)</th>
<th>Averages 2011 (n=14)</th>
<th>Difference</th>
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<tbody>
<tr>
<td>Level of Use</td>
<td>3.9</td>
<td>3.9</td>
<td>0</td>
</tr>
<tr>
<td>Knowledge</td>
<td>3.9</td>
<td>3.4</td>
<td>-0.5</td>
</tr>
<tr>
<td>Acquiring Information</td>
<td>3.5</td>
<td>3.6</td>
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</tr>
<tr>
<td>Sharing</td>
<td>3.4</td>
<td>3.5</td>
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<tr>
<td>Assessing</td>
<td>3.3</td>
<td>3.4</td>
<td>1</td>
</tr>
<tr>
<td>Planning</td>
<td>3.3</td>
<td>3.6</td>
<td>1</td>
</tr>
<tr>
<td>Status Reporting</td>
<td>3.3</td>
<td>3.9</td>
<td>1</td>
</tr>
<tr>
<td>Performing</td>
<td>3.3</td>
<td>3.6</td>
<td>1</td>
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</table>
# LoU Scores

**cohort 2 for years 2010 & 2011**

<table>
<thead>
<tr>
<th></th>
<th>Averages 2010 (n=7)</th>
<th>Averages 2011 (n=6)</th>
<th>Difference</th>
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<tbody>
<tr>
<td>Level of Use</td>
<td>3.3</td>
<td>4.6</td>
<td>+1.3</td>
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<tr>
<td>Knowledge</td>
<td>3.9</td>
<td>4.5</td>
<td>+.6</td>
</tr>
<tr>
<td>Acquiring Information</td>
<td>3.6</td>
<td>5.0</td>
<td>+1.4</td>
</tr>
<tr>
<td>Sharing</td>
<td>3.6</td>
<td>5.0</td>
<td>+1.4</td>
</tr>
<tr>
<td>Assessing</td>
<td>3.6</td>
<td>5.0</td>
<td>+1.4</td>
</tr>
<tr>
<td>Planning</td>
<td>3.6</td>
<td>4.8</td>
<td>+1.2</td>
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<tr>
<td>Status Reporting</td>
<td>3.6</td>
<td>5.0</td>
<td>+1.4</td>
</tr>
<tr>
<td>Performing</td>
<td>3.6</td>
<td>4.7</td>
<td>+1.1</td>
</tr>
</tbody>
</table>
Knowledge

• Would you please describe strategies included in SIWI when addressing the E/LA CCSS.
• What do you see as the strengths and weaknesses of SIWI when addressing the E/LA CCSS? Have you made any attempt to address the weaknesses?
• Can you describe SIWI to me and how it related to instruction as you see it?
Knowledge

Assesses knowledge of the characteristics, use, and consequences of the practice. Does not take opinions or feelings into considerations.

Cohort 1, mean: 3.3
Cohort 2, mean: 4.4
Acquiring Information

• Are you currently looking for information about using SIWI to address the E/LA CCSS? What kind? For what purpose?
• Are you currently looking for any information about SIWI? What kinds? For what purposes?
Acquiring Information

Assesses ways the individual is seeking knowledge about the information practice. Asks about resources and materials the teacher may be investigating.

Cohort 1, mean: 3.5
Cohort 2, mean: 5
Sharing

• Do you ever talk to other teachers of the deaf about these practices? What do you tell them?

• At this point in time, what kinds of questions are you asking about SIWI? Give examples if possible?

• Do you ever talk with others and share information about SIWI? What do you share?
Sharing

Assesses ways the individual is discussing implementation, problems, materials, and outcomes of the practice with others for the purpose of improvement.

Cohort 1, mean: 3.4
Cohort 2, mean: 5
Assessing

• At this point in time, what kinds of questions are you asking about SIWI? Give examples if possible?
• What do you see as the strengths and weakness of SIWI as it related to instruction from the perspective of your particular teaching situation?
• What do you see as being the effects of this practice? In what way have you determined this? Are you doing any evaluating, either formally or informally of your use of this practice? Have you received feedback from students? What have you done with the information you got?
Assessing

Assesses how the individual engages in gathering evidence of the effectiveness of the practice and of how he or she is implementing the practice. May be formal or informal.

Cohort 1, mean: 3.3
Cohort 2, mean: 4.9
Planning

• As you look ahead to later this year, what plans do you have in relation to your use of this practice?
• What are you planning with respect to SIWI? Can you tell me about any preparation or plans you have been making for use of this practice?
• Can you summarize for me where you see yourself right now in relation to the process of learning more about SIWI?
Planning

Assesses specific short-range and/or long-range plans the individual has for learning more about adopting the practice and integrating it effectively into his or her classroom.

Cohort 1, mean: 3.4
Cohort 2, mean: 4.7
Status Reporting

• Have you made a decision to use SIWI in the future? If so, when?

• Have you made any changes recently in how you use SIWI to address the E/LA CCSS? What? Why? How recently? Are you considering making any changes?

• As you look ahead to later this year, what plans do you have in relation to your use of this practice?
Status reporting

Assesses how the individual feels about the current status of his or her response to the implementation of the practice.

Cohort 1, mean: 3.8
Cohort 2, mean: 4.9
Integration

• Are you considering or planning to make any major modifications or to replace this practice at this time?
• How do you work together with other teachers using this practice? How frequently?
• What do you see as the strengths and weaknesses of this collaboration?
• Are you looking for any particular kind of information in relation to this collaboration?
• When you talk to others about your collaboration what do you share with them?
• Have you done any formal or informal evaluation of how your collaboration is working?
• What plans do you have for this collaborative effort in the future?
Integration

Assesses how the individual is actually implementing the practice in instruction.

Cohort 1, mean: 3.6
Cohort 2, mean: 4.6
Discussion

• Notable increases from 2010 in LoU “acquiring information”, “planning”, “status reporting” and “performing”
  – May be an indicator of more sharing in the schools
  – Recognize the need for a framework that supports structured collaboration across schools

• Notable differences in Cohort 2 LoU scores (average increase of 1.4 in 2011)
  – May be due to changes in programming (i.e., Supported planning sessions, Additional training in content application)

• 2 years of training increases the ability of participants to reach higher levels of use
  – Ongoing PD important
Discussion, cont.

• Good implementation of SIWI overall
  – Between agree and strongly agree on most indicators
  – Most difficulty with “audience” and “building metalinguistic knowledge”
  – Increase in “procedural facilitator” from 2010

• Graduate class led to higher implementation and LoU scores
SIWI Resources


Wolbers, K., Dostal, H. & Bowers, L. (under review). The unexpected outcomes of Strategic and Interactive Writing Instruction: Stories of deaf middle school students.


Other Resources


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