Persuading Students with Emotional Disabilities to Write: Findings from a Design Experiment*

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Design Experiment

- Attempts to “engineer innovative educational environments” (Brown, 1992, p. 141)
- “iterative, process focused, interventionist, collaborative, multileveled, utility oriented, and theory driven” (Shavelson et al., 2003, p. 26)
- “attempt to carry experimentation into real-life settings in order to find out what works in practice” (Collins, 1999, p. 290)
- Involves design-analysis-redesign of educational practice and environments

Research questions

1. Can the SRSD model of instruction for POW-TREE, used successfully in previous research, be adapted to work with middle school students with serious emotional and behavioral disorders?
2. What supports, inputs, interactions and modifications are required to implement this SRSD POW-TREE strategy effectively?

Setting

- Public Day School for grades 7 & 8 students with serious emotional and behavioral disabilities.
  - Last public school setting before outside placement.
- School wide behavioral management system and plans implemented consistently.
  - Points, vouchers, levels used.

Participants

- 10 eighth grade students with EBD, assigned to a public alternative setting school for students with serious emotional disabilities
  - 8 males, 2 females
  - Mean Age = 169.7 months (SD = 7.4)
  - 4 Caucasian, 4 African American, 1 Hispanic, 1 multiracial
  - 2 students were dropped from the study
  - One was expelled from school
  - One student transitioned to his home school but did complete the first post testing
Materials and Training

- Self-Regulation Strategy
- Development Instructional Model
- POW-TREE Lessons from Mason et al. and Harris & Graham.
- Mason provided initial training to teachers and GMU staff
- GMU staff continued with teacher training and support

Examples of My Self Statements

To think of good ideas:
- I have to let my mind be clear.
- I need to take my time. A good idea will come to me.
- What do I want to tell the reader I believe?

While I work:
- Now I better figure out at least three reasons.
- I need to think of million dollar words.
- I can write down ideas of parts in the graphic organizer as I think.

To check my work:
- I need to examine my essay to see if I have all the parts.
- Does my paper make sense?
- Can I write more?

POW + TREE

<table>
<thead>
<tr>
<th>Topic Sentence</th>
<th>Tell what you believe!</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td></td>
</tr>
</tbody>
</table>

- R Reasons: For Why
  - Why do I believe this?

- E Explain: Say more about each reason

- E Examine: Did You?

Writing to Persuade Learning Contract

Student: ________ Date: ________

Target Completion Date: ________

Goal: ________

How do I know if I have completed this goal?

Teacher: ________

Signature: Student: ________ Teacher: ________
Procedure
- HSRB approval
- Meetings with school staff
- Teacher training from PSU staff, follow up and ongoing training with GMU staff, partnership teaching
- Student pre testing (Oct 23, 2007)
  - Woodcock Johnson Writing Fluency
  - OWLs
  - Writing prompt and essay

Procedure cont.
- Student Instruction – teacher delivery of instruction + GMU first strategy lesson (Oct 24, 2007)
  - One large group of 10 students
- Student Instruction – GMU team delivery of instruction (Dec 3, 2007)
  - One large group of 10 students
- Student Instruction – Split into 2 Classrooms: GMU team delivery of instruction (Jan 29, 2008)
  - One large group of 10 (down to 8) students
  - Two small groups (N = 3; N = 5) based on writing abilities after beginning of third school academic quarter

Procedure cont.
- Post Testing (Feb 26-28, 2008)
- Maintenance Testing (June 3, 2008)
- 50-55 days of instruction, 29 minute periods, approximately 4 days weekly
  - Approximately 24.17 hours of instruction distributed over a little over 4 months

Data Collection Process
- Videotaped most classes
  - Restricted videotaping due to lack of permission from all students
  - Cameras at side angles across classes
- Behavioral Observations
- Fidelity of Treatment Checklists
- Daily Reflections among Project Staff
- Regular meetings with Teacher
- Regular meetings with School Administrators

Results
- Student Characteristics
- Modifications in Instruction & Activities
  - Design-Analysis-Redefine
- Achievement Data
  - WJ-Fluency
  - OWLs
  - Essays
- Behavioral Data
  - On Task
  - Off Task
  - Out of Room
- Strategy and Efficacy Data

Unique Challenges of this Population
- Emotional Component to Off Task Behavior must be considered when planning instruction
  - E.g., Anger, can't stop thinking about something else that happened
- Inappropriate affect for learning
  - Mood interferes with academic on tasks
- Oppositional/defiant behavior
  - Do not trust authority figures; not in their interest to do what you say
- Overwhelming fears, including possibly fear of success
- Chronic out of class due to any of the above
Common Behaviors & Observations

- Extended, loud conversations
- Refusal to work
- Irritability & Anger
- Moodiness
- Frequently removed during class to meet with counselors
- Self-awareness of inappropriate behavior
- Put themselves in time out
- Verbal acknowledged that they were upset
- Betty said: “Okay, but you know it depends on how I feel behavior-wise.”
- Sam said: “I have a lot on my mind and it is hard to focus.”

Modifications in Instructional Activities and Artifacts based upon Design-Analysis-Redesign

- **Instruction:**
  - Teacher-led instruction, 1 group
  - GMU team-led instruction, 1 group
  - GMU team-led instruction, 2 groups

- **Materials:**
  - Added column for "explanations" to graphic organizer
  - Wrote essays with missing parts for students to identify missing essay elements

- **Activities:**
  - Providing flexibility for task completion.
  - Tom was allowed to work on his own, without teachers assisting by looking over his shoulder. However, he knew at certain points, he would conference with teachers to check

- **Classroom management:**
  - When students were getting frustrated with writing, they were sometimes allowed to take a break, get a drink of water, and then get back to work.
  - Lollipops were used as additional positive reinforcement when students worked especially well.

- **Classroom management:**
  - Took time to develop very specific styles of interacting with students.
  - It took several weeks for “Tom” to have any trusting relationship with GMU staff and modifications were made on how to handle providing feedback on his work which he did not want to share
  - Albert had personal space issues and was unable to have us get close or read over his shoulder.
  - Sam frequently came to class upset about what happened in a previous class and would not get to work until he had time to tell GMU staff what had happened.

**Table 1**

<table>
<thead>
<tr>
<th>Test</th>
<th>Pretest Mean (SD)</th>
<th>Posttest Mean (SD)</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Woodcock Johnson Fluency</td>
<td>18.40 (5.04)</td>
<td>21.78 (4.99)</td>
<td>.02</td>
</tr>
<tr>
<td>OWLS</td>
<td>88.40 (11.89)</td>
<td>89.88 (8.13)</td>
<td>.001</td>
</tr>
</tbody>
</table>

1Significantly greater than pretest, p < .05, according to the Wilcoxon Matched-Pairs, Signed Ranks Test
Number of Words Written

Parts of Essay

Persuasive Essay Results & Effect Sizes (pooled SD)

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<thead>
<tr>
<th></th>
<th>Pretest Mean (SD)</th>
<th>Post test Mean (SD)</th>
<th>Maintenance Mean (SD)</th>
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<tbody>
<tr>
<td></td>
<td>(N=10)</td>
<td>(N=9)</td>
<td>(N=6)</td>
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<tr>
<td>Number of Words</td>
<td>82.80 (67.75)</td>
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<td>ES = 1.21</td>
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<tr>
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<td>ES = 1.89</td>
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<tr>
<td>Number of Paragraphs</td>
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<td>4.78 (1.47)</td>
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<td></td>
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<tr>
<td></td>
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<td></td>
<td>ES = 1.93</td>
</tr>
<tr>
<td>Number of Transition Words</td>
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<td>10.33 (5.80)</td>
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<td>ES = 0.88</td>
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<td>Holistic Scoring</td>
<td>3.20 (1.40)</td>
<td>5.44 (1.67)</td>
<td>4.67 (1.86)</td>
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<td>ES = 0.90</td>
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</table>

Mean Class On Task Behavior

Mean Class Off Task Behavior

Mean Class Time Out of Room
Jose’s Essay Pretest

Kids my age should be able to have cell phones because we can use it for emergencies or to call friends.

Jose’s Essay Post Test

I would have a $30 gift card as a gift. My first reason is that I could use it to buy gifts for people I care about. Another reason is to use it to buy some movies or some video games.

My next reason is to save the money for something special. My first reason is that I could use it to buy gifts for people I care about. If I go to the store and see something nice that someone would like, then I would get it in secret.

Like the time I saw a beautiful ring that my mom would like! I gave it to her as a present for Christmas. Also try to get it as cash and send it to my grandfather or I need it more than me.

Another reason is to use it to buy video games. If there is a real cool game that is the store I’d go buy it and play it when I have time. Or maybe a new video game come out. I would ask my parents if they can take me to the store and buy it so to watch it with them. Save up for a game that I want to when I have enough money.

My final reason is to save that money for something special. Like buying stuff for my cousins back home. Also buying stuff for camping, the cabin or for winter and snow. Maybe just saving it for something cool that might come out like a movie or a game. Or to buy a gift for a very special gift that I care about a lot.

This is why I would get a gift card as a gift. It’s important to be careful for the things you buy or get. If you are not careful you may get mad or very upset so be careful.

Jose’s Post Test (cont.)

My final reason is to save that money for something special. Like buying stuff for my cousins back home. Also buying stuff for camping, the cabin or for winter and snow. Maybe just saving it for something cool that might come out like a movie or a game. Or to buy a gift for a very special gift that I care about a lot.

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How Did the Strategy Help?

- Easy to learn
- Have more ideas
- Plan and organize
- Work more quickly
- Use organizer
- Making argument and persuading
- Selecting topics

Edward’s Strategy Reports

- “[POW+TREE] has helped me to get done with my work faster.”
- “You can think and look back at your notes. You don’t have to think while you’re typing.”

Retell the Strategy Learned

Post Interview

Maintenance Interview
Teacher and Administrator Reports

- Saw benefits of SRSD POW-TREE strategy for all of their students
  - Simple, yet highly, effective strategy
  - Reported some generalized strategy use to other academic classes (e.g., Bonnie)
- Wanted to continue with research
- Wanted to participate coming year in research

Conclusions

- SRSD strategies using POW-TREE are extremely powerful techniques for improving expressive writing skills for middle school students with emotional and behavioral disorders attending alternative public school settings.
  - All students significantly improved from pre to post testing on W-J Fluency and persuasive essay writing.
  - All students maintained essay writing.
  - All students reported positive benefits of learning the strategy.
  - Some students reported generalized strategy use.
  - Performance declined some what on three month delayed post test, however, performance was still significantly higher than at pre testing.
  - Instruction was intensive, recursive, and adaptive to meet needs of students.
  - Significant instructional adaptations, including extensive review, enormous encouragement and significant continuous praise required to maintain attention to task for this population.

Basis of Evidence for Treatment Efficacy

- Pre post change
- Concordance between essays produced and strategy taught
- Teacher and administrators’ reports
- Students’ reports
- Students’ ability to describe and discuss and apply strategy
- Student reports on strategy use
- Documentation of several students’ generalized strategy use (e.g., teaching others)
- Outcomes aligned with previous research w/LD

Recursive Process

- Iterative changes
- Daily discussions and reflections
  - GMU staff held daily discussions on progress each instructional day
- Ongoing checking to determine student progress
  - Thorough progress monitoring on each student’s daily performance
  - Instructional Modifications as needed
References


References cont.