**The SERP Approach**

Engage in long-term research, development, and implementation (RDI) partnerships with school districts for purposes of generating lasting improvements in educational practice.

- Recruit researchers to work on problems of practice
- Draw upon the expertise of practitioners at all stages of the work
- Embed the work in school settings
- Engage education designers who can shape knowledge and ideas into tools for experimentation, evaluation
- Respond to district needs while designing for scale
- Follow the contours of a problem through the system
- Generate genuinely new knowledge

**Model**

- Establish “field sites” - district settings that serve as long-term sites for research, development, and implementation (RDI)
- Maintain stable structures and processes to ensure:
  1. Relevance, responsiveness, and mutual accountability
  2. Incorporation of existing knowledge from research and practice
  3. Generation of knowledge and tools
  4. Iterative processes lead to rethinking of a design, or reframing/broadening of the problem and its solution

**Claim 1:**

**Shared authority and accountability in the SERP model leads to problem definitions and solutions that more effectively balance research knowledge and the constraints of practice.**

Example:

Word Generation, a cross-content area literacy program responds to a district identified problem that students are not prepared in middle school to comprehend high school texts.

- responsive to research by providing repeated exposure (daily experiences) for students that build their academic literacy through reading, writing, and discussion across the content areas
- responsive to practice constraints by limiting content area teachers’ responsibility to one day a week for a short period (15-20 minutes)
- addresses limited tolerance of content area teachers for addressing literacy by designing tasks that build literacy using subject area content

Example:

AlgebraByExample, 42 assignments for Algebra 1 topics that:

- build on knowledge base regarding the effectiveness of interleaved worked examples in addressing misconceptions and improving math performance
- respond to the tension between senior administrators who demand improvements be integrated into the regular curriculum, and the demands of algebra teachers that their routine practice not be expended

**Claim 2:**

**Interdisciplinary collaboration allows for a multi-pronged approach that promises more coherent and effective problem solving.**

Example:

Boston Public Schools Problem: How do we prepare middle school students to comprehend high school texts?

**Word Generation program to build academic language across the curriculum.**

**Strategic Adolescent Reading Intervention (STARI) to build basic reading and comprehension skills among students reading 3-5 years below grade level.**

**Reading Inventory and Scholastic Assessment (RISE) assessment that provides student profiles that can inform instruction and placement decisions.**

**Development of new instruments to assess academic language, perspective taking, and critical reasoning.**

**Synergies across initiatives include:**

- Expanded attention of the RISE to differentiating students who read at a 2nd grade level from those reading at a 3rd or 4th grade level to allow for better placement decisions
- Common instructional strategies across the Word Generation and STARI programs
- Use of Word Generation as a strategy to build internal coherence in schools
- Capacity to measure the moderating effects of academic language, perspective taking, and critical reasoning on reading comprehension promoted by Word Generation and STARI

**Challenges**

1. **Funding:** Model requires a systems approach and sustained investment that is inconsistent with existing funding opportunities
2. **Scale:** Model requires a level of commitment from districts that cannot be sustained unless the investment is substantial enough to be of high importance to the district
3. **Expertise:** Bench depth must be built in 4 areas:
   - partnership development and management
   - the methods and processes relevant to research in practice settings
   - design for end users in education
   - soliciting and evaluating proposals to conduct sustained, systemic RDI efforts

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**Example:**

In September 2007, New York City began a new program to try to help its elementary students to do well in school. The program included paying students money as an incentive to do well on tests. Catherine Snow, Harvard Graduate School of Education • Suzanne Donovan, SERP Institute • Phil Daro, SERP Institute •  © Strategic Education Research Partnership 2010

**Focus Words**

- implement
- motivate
- undertake
- incentive
- enables
- TO DO WELL IN SCHOOL?

**TO DO WELL IN SCHOOL?**

He offered students money as an incentive to do well on tests. Many people are excited about the idea of paying students money as an incentive to do well on tests. Students might do better if they get immediate rewards. It is hard for them to understand that learning can be fun. It is not fair. They worry about students who try hard but do not change the signs correctly. In the step marked with an arrow, Alta did not change the signs correctly. Which term should have a positive sign? Why should the sign be positive?

SET 2

In the step marked with an arrow, Alta did not change the signs correctly. Which term should have a positive sign? Why should the sign be positive?

**Example:**

Here is her work:

$x^2 + 8x + 2 - 4x + 8$?

Why should the sign be positive?

- Alta did not change the signs correctly.
- In the step marked with an arrow, Alta did not change the signs correctly.
- The sign should be positive because:
  - The term $-4x$ is negative, so the sign of the next term should be positive to ensure the overall expression is positive.

**Your Turn:**

$3x^2 - 4x + 8$?

Why should the sign be positive?

- The term $-4x$ is negative, so the sign of the next term should be positive to ensure the overall expression is positive.

**Example:**

Setting 2: Find the difference for each of the polynomials. SHOW ALL OF YOUR WORK.

$3x^2 - 4x + 8$?

Why should the sign be positive?

- The term $-4x$ is negative, so the sign of the next term should be positive to ensure the overall expression is positive.

**Your Turn:**

$3x^2 - 4x + 8$?

Why should the sign be positive?

- The term $-4x$ is negative, so the sign of the next term should be positive to ensure the overall expression is positive.