LPS: Navigating Learner Variability

BACKGROUND

- Over the last 40 years, the student population in the United States has grown increasingly more diverse.
- Learning sciences research has advanced our understanding of learner variability and the importance of grounding educational practice in the individual — rather than the fiction of an average student.
- Technological innovation has moved closer to being able to realize the promise of research-based personalization.

Learner Positioning Systems (LPS) distills research on content area, cognitive, social-emotional, and other student factors to help educators and product developers support the variability of all learners.

METHODS

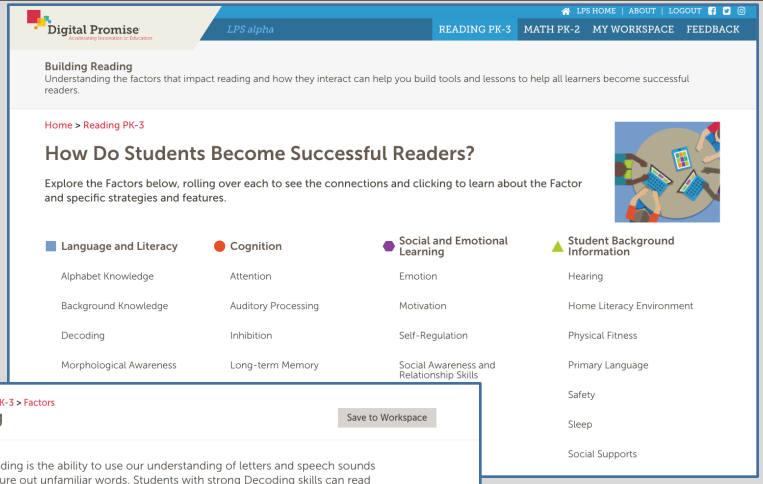
Goals of the Learner Positioning Systems Initiative

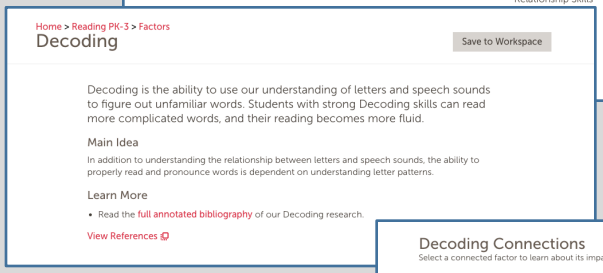
- Highlight the factors that research shows matter most for learners
- Improve our capacity to understand learners at an individual level
- Provide practitioners and learners with more effective, research-based learning strategies
- Support the development of more effective research-based educational products and services

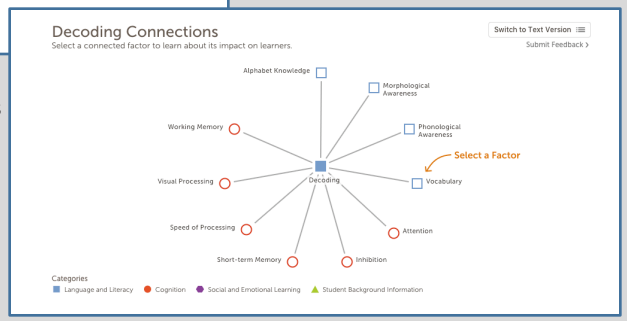
Learner Model Development Process

1. Determine content area (e.g., reading, math) and age range
2. Assemble Advisory Board of leading academic researchers who examine the content area as well as cognitive, social-emotional, and background variables that affect learning
3. Review existing research literature, focusing on recent review papers, to identify state-of-the-science results
4. Develop a draft of key research-based factors for advisory board to review and refine
5. Create accessible summaries of each factor to present definitions and main ideas, with annotated bibliographies available for more information
6. Identify connections among factors to show complexities of learning processes
7. Using factor list, identify evidence-based strategies to address learners' needs
8. Continually review new research and add factors and strategies as needed to model

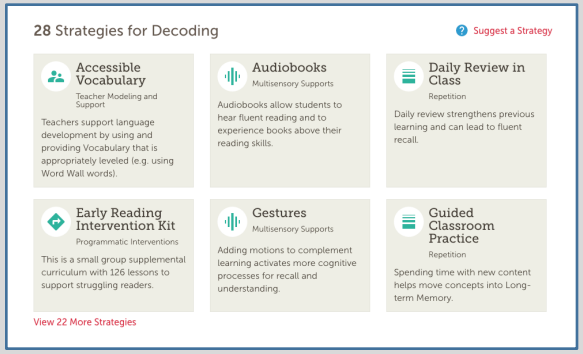
LEARNER MODELS







Our interactive web app allows users to explore the factors affecting learning outcomes, with brief overviews of the research and how each factor connects to others.



Each factor is linked to evidence-based strategies that can be used to either support the development a factor or mitigate its effects. Strategy pages include text and video examples of their implementation in classrooms and digital products.

https://lps.digitalpromiseglobal.org

PARTNERSHIPS

LPS partnerships aim to increase awareness and understanding of learner variability with the goal of supporting the use of more evidence-based strategies to address learners' needs. Partnerships with educators include outreach to:

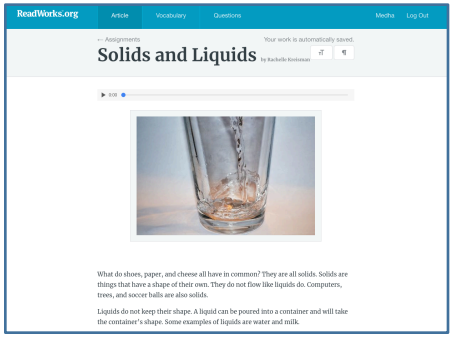
- School district administrations and educators,
- Teachers' professional organizations, and
- Teacher educator programs.

Partnerships with educational technology developers involve a collaborative process:

One example of an LPS partnership is with ReadWorks, a nonprofit online article library for K-12 educators.

Working with LPS, ReadWorks added many evidence-based features to their site to improve support for all learners, including:

- Text-to-Speech audio options that support Vocabulary, Emotion, Memory, and more
- Student choice options (e.g., text magnifier) that support Vision, Attention, and more



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