

# DISSEMINATING METHODS FOR RESEARCH INNOVATIONS IN LEARNING DISABILITIES AND READING SCIENCE

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## Abstract:

The Learning Disabilities Research Centers Consortium—or LDRC—is a project that works to collect knowledge on learning disabilities and their effects on major learning milestones. There are many different topics to take into account when collecting this data; one approach focuses on the foundations of research already available about learning disabilities and how this research is being disseminated by researchers or received by key audiences (such as parents, teachers, or policymakers). So, what methods of research that are common in early childhood development innovations are being utilized for dissemination to effective groups? Researching this question, we sorted through the LDRC’s matrix of journal articles and assigned scores based on impactful dissemination methods, affected populations, and the important contributions of each work. We used different Large Language Models (LLMs), such as Co-Pilot, that were available to use by our institution to help parse through the information, then went back and corrected or verified each input. The focus after this was to see what innovative work was in need of dissemination and how. As it is now, many of the common dissemination methods focus on reaching scientific audiences as opposed to audiences like practitioners and families. While the analysis is ongoing, review of the literature has shown that research findings can be organized into categories like graphics, web-posts, presentations, etc. Beyond the current methods of dissemination present within scientific fields, further analysis is needed to build methods to engage groups outside of research fields. The knowledge gap lies within the focus of reaching these non-scientific audiences, many of which are the groups affected by the original work. Once completed, these findings can fill in unknowns about preferred methods for researchers in their fields and how different methods reach audiences. This can shape recommendations for promoting new works or teaching specific groups about new findings.

## Introduction:

Dissemination is the spread and distribution of knowledge or information to wider reaches of people. Dissemination of research often varies widely between fields, even varying within a field. Dissemination methods can be tailored to the research, being specific or broad, depending on the topics or targeted audiences. Because of this wide variation, it can be difficult to propose any blanket method for reaching new audiences with research findings. Brownson et al. (2018) defines effective dissemination as being “developed in ways that match well with adopters’ needs, assets, and time frames” (p.104). Specialized approaches seem to benefit dissemination efforts more than that of the general efforts made to reach scientific communities. The Engagement Core of the Learning Disabilities Translational Science Collective (aka the Collective) aims to build standards for disseminating research and putting findings into actionable practices. This work can be difficult to measure effectiveness due to the nature of following a published work after its findings are released. Within the academic community, measuring the extent of a paper’s reach can be quantified by how much the paper has been cited within its field. The difficulty of measuring dissemination comes more with groups that are outside of the research sphere, but are the groups that can actually utilize the recommendations of research findings, such as healthcare workers, educators, or parents. While published findings are incredibly important for pushing forward recommended practices with learning disabilities and childhood development, it is only part of the process of improving society. The published findings must be available and known about in order to bring change. This research-to-practice gap is in part due to “ineffective dissemination” (Brownson et al 2018). What we know about dissemination is generally to do with the impact of its practices. For this project, we hypothesized that by talking with researchers and analyzing how dissemination can be effective, we could build more instructive and cohesive recommendations for new research.

## Aims and Research Question:

The LDRC has gone through many phases of developing translational science within learning disability research. Initial phases of the project focused on developing recommendations broadly, taking a more generalized approach instead of working on targeting research to specific classifications of learning disabilities. Currently, the Collective aims to translate research on specific learning disabilities related to reading (e.g., dyslexia) to nonscientific audiences. This approach will provide more insight into effective messaging to relevant audiences, grounded in decades of rigorous scientific evidence.

## What the Storytelling Measures

Rather than summarizing research quality alone, this score captures a study’s “story worthiness”—its potential to connect rigorous evidence to lived experience, professional action, or policy relevance. It answers the question: “Can this study become a compelling, credible, and usable story for someone who wasn’t part of the research team?”

The scoring system integrates the following components:

### 1. Strength of Evidence (0-3)

Whether the study demonstrated meaningful or strong evidence. Stronger results increase the likelihood of a persuasive narrative.

### 2. Practitioner Relevance (0-3)

The degree to which the findings are usable, actionable, or meaningful to classroom educators, coaches, school leaders, or interventionists.

### 3. Dissemination Gap (0-3)

A reverse score: the less known the study is, the more storytelling potential it has. A high score here indicates a missed opportunity for visibility.

### 4. ECR Spotlight (0-2)

Studies led or substantially contributed to by early career researchers are prioritized to support LDRC’s commitment to developing research talent and surfacing underrecognized contributions.

### 5. Narrative Strength (0-2)

Whether the study naturally lends itself to a broader theme or “hook”—such as equity, bilingualism, innovation, or instructional transformation.

### 6. Storytelling Potential (Readiness) (0-2)

Availability of or potential for storytelling assets (quotes, visuals, clear use cases) and whether the study can be developed into a story with minimal follow-up.

The maximum score is 15. A study scoring between 13-15 is considered “feature-ready,” while scores of 10-12 suggest strong potential with minimal development. Lower scores (7-9) may require additional framing or are better suited for background use or internal synthesis.

Figure 1: Photo of table developed by Dr. Stephanie Brown

## Methods:

In order to establish a method of evaluating and developing effective dissemination, we took a collection of papers on learning disabilities and childhood development from the National Institute of Health and scored aspects that could impact dissemination. These aspects, shown in figure 1, were assessed on a range of criteria using Microsoft Copilot. Using a specific prompt that established the criteria for each scoring possibility, each paper was submitted to the AI tool and then the given output was then verified or modified by the team. It is important to acknowledge the common unreliability of generative AI tools, so each output we took from the tool was looked over by our team before taken as data. With the volume of articles in the LDRC, the AI tool was used to shorten the time it took to analyze the papers and standardized the scoring qualifications. Using these scores, we can evaluate which innovations need dissemination and which methods are most appropriate for different audiences given the source of the original journal articles. The analysis of these scores is also paired with feedback from key researchers in the field to form a direction of disseminating the research.

## Results/Findings:

Results from the project are currently inconclusive as the project is still ongoing; however, there is some important information that we have gained at this point in the process. Through the interviews with key principal investigators, there is an important distinction that they have highlighted as important for dissemination efforts: classification and screening of learning disabilities. This is a key goal that has been suggested to further develop methods of disseminating research. This classification is important to be able to generalize recommendations and to develop studies to analyze the impact of dissemination on these groups. As for the scoring and categorizing of research innovations, that is at a preliminary stage of having results that form recommendations. We have developed initial measures of sorting through the findings, but more discussions with principal investigators are needed to inform methods that can best suit research findings. Based on preliminary findings, the collective analysis of these articles shows that understanding more about how dissemination efforts are received, the better equipped we are at actually finding methods that reach audiences more effectively. To continue these advances, there needs to be further development of the category analysis. This research helps fill in the knowledge gap of research dissemination by assigning metrics to the current articles’ dissemination methods to then later develop more with new research.

## References and Acknowledgement:

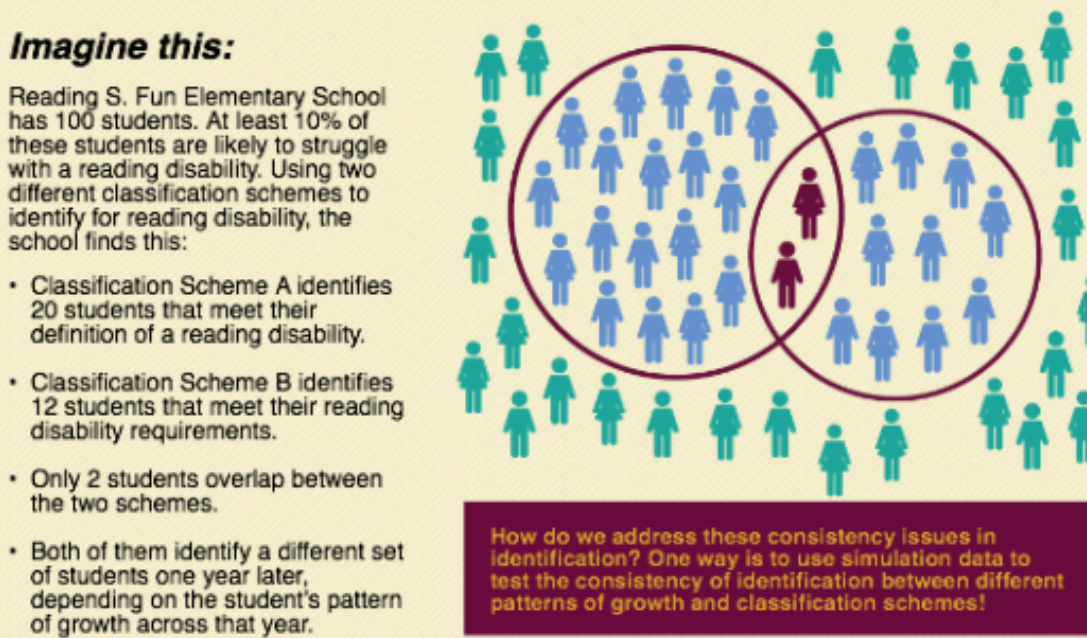
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## Getting it Right

**Correctly identifying reading disabilities**  
A challenge in reading disability research has been the consistent and accurate identification of students who actually have a reading disability. Current research by Schatschneider, Wagner, Hart, & Torgesen (2016) has used simulation data—data created from real student data—to examine the consistency and accuracy of student reading disability identification under different possible reading skill patterns of growth and classification schemes.

### The Current Classification Climate



### Possible Classification Schemes of Reading Disability

- Expected low achievement in reading
- Unexpected low achievement in reading
- Dual discrepancy: low growth and low achievement in reading
- Constellation model: a combination of at least two of the previous schemes

Each classification scheme was tested where reading disability was defined as students below one of three cut-score values: the 20th, the 15th, and the 10th percentile score.

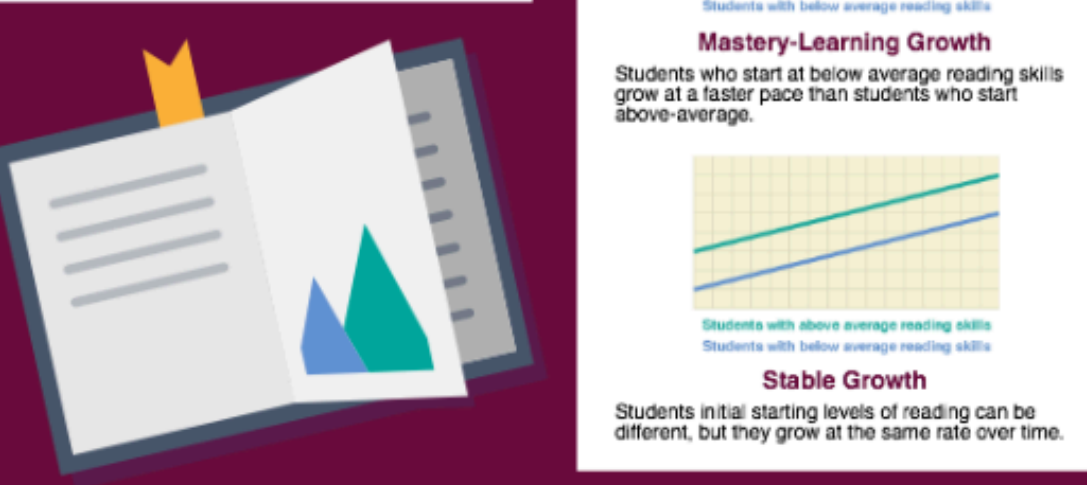
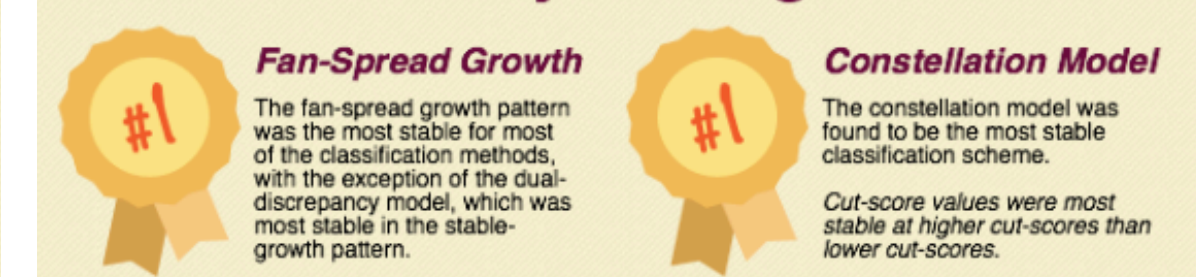


Figure 2: Infographic from LDRC Blog. An example of dissemination methods.

### Study Findings



Schatschneider et al.'s (2016) results show that classification is most consistent when students with the highest reading levels grow at faster rates than their lower-reading peers. Identification works when the classification scheme is able to pinpoint those students who are consistently struggling over time. Their findings also suggest that a constellation model for reading disability classification is a more stable and consistent method to use than other classification schemes.

For more findings about learning disabilities, be sure to check out our website and Twitter!

fsuid.org @FSU\_LDRC

### Reference

Schatschneider, C., Wagner, R. K., Hart, S. A., & Torgesen, E. L. (2016). Using simulations to investigate the longitudinal stability of alternative schemes for classifying and identifying children with reading disabilities. *Scientific Studies of Reading, 20*(1), 34-44.

