

# Demystifying the Science of Reading

By Lousia Moats, Ed. D., Editor-in-Chief of The Reading League Journal



This first issue of the Reading League Journal culminates several years of effort by the League's founders to bring educators and scientists into active communication with one another. One of the League's primary purposes is to link people from both worlds who embrace ideas and practices informed by scientific research. In so doing, the League is disseminating professional knowledge that is proven to benefit students and teachers alike, while simultaneously guiding researchers to be relevant and practical.

A major quandary for many of us in the field, however, is that not all of our colleagues are similarly enamored by the idea of a scientific approach to practice or the consensus findings of research. Because resistance to some well-validated theories and practices is alive and well, these questions bear considerable reflection: Why would educators resist both the idea and the substance of the science of reading? What can we do to demystify scientific reading research and what can we do to ensure that practitioners view research more favorably? And conversely, how can scientists do a better job communicating important information to practitioners and listening to their concerns?

To begin, educators may be skeptical or rejecting of reading science because they are turned off by the unsettling stereotypes of scientists projected in fiction and film. Scientists are mad (Dr. Frankenstein); scientists are aloof, eccentric and robotic (Dr. Strangelove); scientists are villainous and evil (Dr. Mengele); or scientists perpetrate experiments on unknowing subjects such as Henrietta Lacks. Scientists are white males in lab coats operating in contexts that have nothing to do with classrooms in our diverse society. Scientists exploit opportunities for personal gain at the expense of their subjects. Scientists do not value human complexity; science reduces the human experience to "mere" cold, hard data which cannot possibly capture truths worth knowing.

Compounding these stereotypical misperceptions among educators is lack of direct experience with how reading or literacy research is actually conducted. Eye movement studies? Brain scans? Priming experiments? Control groups? Effect sizes? ANOVAs? Nested subjects in a research design? Such aspects of scientific work are alien and seemingly irrelevant to a teacher who must design and implement instruction for kids, often with too little training and support. Typically, training for educators barely addresses the difference between a percentage and a percentile, let alone classic problems of scientific inquiry or the statistical methods required for objective truth-seeking. Very few teacher preparation programs collaborate with psychology or communication sciences departments within the same university, let alone with outside entities. And the journals and conferences serving our various disciplines rarely cross over into other relevant domains.

These divisions and barriers to unifying the field around bedrock, well-validated ideas are not easy to overcome. On the scientific side of the equation, those who obtain grants or who must publish in certain journals have very little incentive to interact with and listen to practicing educators. Their departments and/or their grant sources may not reward or fund attendance at conferences, visits to schools, or writing for audiences outside

their discipline. People like Courtney Cazden, a Harvard Education School professor who spent her sabbatical teaching first grade, or Benita Blachman, Professor at Syracuse, who herself designed and implemented the interventions in her studies, are unusual.

Conversely, educators who want to understand reading science are seldom awarded time, approval, or funds to travel to scientific meetings. Scientific journal articles are loaded with jargon and statistical findings, while equivocating (often maddeningly!) on the practical implications of the study. Opportunities to actually participate in rigorous research studies are rare, so the painstaking, imperfect, and incremental progress of scientific work remains a mystery to those who have not done it. Thus, it is not surprising that educators see little value in slogging through a dense report, loaded with references, that in the end does not help them with the challenges of actually teaching kids.

A commendable goal of The Reading League is to chip away at these long-standing obstacles to progress. This journal by design has recruited editors, readers, and writers from both worlds – the world of scientific studies of reading, and the world of practicing educators who seek to benefit from and apply the consensus findings of research. They will be exchanging ideas, offering critiques, and debating issues with one another.

Contributors on the scientific side will be invited to counteract the stereotypes enumerated above. They will be asked to explain their findings in plain English and, when justified, to offer practical guidance grounded in evidence. They will be asked to address possible impacts of their findings on teaching and learning, and when relevant, to consider issues of equity and access in education. They will be given forums to demystify the process of gathering evidence for those who seek to understand it better. And they will have opportunities to listen to the observations and concerns of talented educators who are working with students daily.

Educators and consumers of scientific work will, in turn, hear directly from those involved in research. We hope that our audience will learn more about the sheer scope of work that exists around major issues in our field and what is involved in building consensus around "settled" science. We hope as well that the sheer diversity of scientific methods and strategies will be appreciated. If we succeed, scientific studies will be viewed realistically for their value and for their limitations, and educators will feel respected as collaborators. The two-way street will be well traveled in both directions.

Over the long term, the promise of nationwide improvement in reading education is within our reach. I am optimistic that The Reading League Journal will be a catalyst in that endeavor.

*This article has been taken from the January 2020 edition of The Reading League Journal. If you are interested in receiving the Journal, become an individual or institutional member today at our website, [www.thereadingleague.org](http://www.thereadingleague.org).*



THE READING LEAGUE  
ADVANCING EVIDENCE IN PRACTICE