



**Research Reading Guide of the Month**  
**SEPTEMBER 2004**

Locke, L.F. (2004).

**Read Research Your Own Way – No Apologies Needed!**

I want to start the new volume-year for UnlockResearch by telling some stories. All of them have a basis in research, but here I will omit the sources and just focus on the ideas behind the tales. If you are interested in pursuing the topics further, I have provided a citation at the end of this Guide that will show you where to look. Here is the first story.

There once was a written report containing some new information about a technical topic in science – quantum mechanics. Two kinds of people were asked to read it. First, there were physicists (who did basic research in physics) whose primary concerns were academic – mainly building up a body of knowledge, step by step, study by study, so that they ultimately could better understand matter, space, and energy and **why** they behave as they do. Then, there were engineers who were professionals who designed and constructed things that people use, such as buildings, machines, and roads. They employed new ideas from research in the field of physics to add to and enrich what they had learned from generations of engineering experience with materials and structures – and **how** those things behave.

After members of both groups had read the report, a researcher (trained in social science) questioned the physicists and engineers closely about (1) how they went about reading the report, (2) what they mostly were looking for, and (3) on what basis they decided whether or not it was a sound report that could contribute to what they knew. I don't think you will be surprised by what that investigator found. The members of the two groups read very differently, looked for different things, and evaluated the materials using quite different standards of quality.

The physicists looked first at every procedure used to generate the new ideas and judged their adequacy. They, also, were centrally concerned with how the investigation's research question and findings fitted into the already existing body of knowledge about quantum physics. They expected that every assertion would have support from the data and examined the conclusions in terms of what they knew about basic mathematics and physical principles.

The engineers looked first for evidence that the new information made sense in terms of their experience with materials and, most particularly, whether it might contribute to the work they did – designing and building things. For them, the most important test of the report's validity was whether it contributed to their understanding of how things in the material world could be expected to behave.

So far, no big surprises in the story, and research (as reflected in the report) appeared to be playing a useful (if quite different) role for both physicists and engineers. The nature of that useful role, however, was created by (was a function of) who the readers were as people – their particular work, the values they had acquired, and the distinctively different academic/professional communities to which members of each group belonged. Certainly, you would not say that either engineers or physicists were using the wrong method of reading and understanding research. You would be more likely to conclude that it all was just a matter of different strokes for different folks.

Is that the end of the story? No, as you probably expected, there is more.

In university programs for engineers (undergraduate and graduate) there are required courses taught by physicists. When our redoubtable social scientist visited some of those classes, these were some of the things that were heard and recorded as data. Engineers were warned that asking about the usefulness of research was incorrect (even a sign of ignorance). They were informed that the truthfulness of research and how it fits into the creation of a knowledge structure were what really mattered. Their physicist instructors reassured them that if they would read reports with that viewpoint as their primary guide, they could then easily figure out how to use the information later – on their own time. Moreover, they implied (or even asserted directly) that engineers who did not read research in that academic manner were simply lazy (or lacked a sound academic preparation) – and were people who obviously did not really want to improve how they designed and built things.

From those observations the social scientist drew the following conclusion. In what they said (and how they rewarded or punished students with grades) the physicists actually were recruiting engineers to their way of viewing the world and their particular way of validating and using research.

Under those conditions, in order to successfully play the “studentship game,” many of the engineers felt they had to go along. Some just let themselves be recruited, while others rebelled in secret silence and waited for graduation – when they could go back to being engineers and not pretend to be little physicists. The majority, however, ended up feeling guilty about their natural (wrong-headed) instincts for reading research – or, worse, found themselves confused about the whole thing.

I am not going to be heavy handed by pointing out what those stories mean in the context of a Web site for physical educators. Just substitute the words “physical education teachers” for the word “engineers” and you will have it all. You can use your own experiences as the basis for accepting or rejecting the accuracy of these stories when applied to physical education. You should know, however, that there is a growing body of evidence to indicate that teachers and academics (particularly active researchers) truly do read and use research in very different ways.

Teachers look first for personal connections between the report and the classroom realities they face. They deal with what is asserted in highly personal and, usually, private terms – not in terms of a knowledge structure that is public, and shared within a community of scholars. It has been my experience that physical education teachers evaluate research reports primarily by use of that personal standard for relevance. They also validate study reports on the basis of whether the author(s) seem to know students and schools and have an accurate sense of what happens in the gym. Researchers who betray ignorance or misunderstanding about those topics are immediately down-rated.

What teachers want is to be made smarter about their students and the business of teaching. Toward that end, reports written with clarity, directness, simplicity, and absence of technical jargon have high value. Teachers have little patience with citations to existing research and theory, which are seen as a mere rhetorical tactic used by researchers “to convince readers that they must be right.” Finally, when it is safe to do so, many practitioners absolutely reject the argument that if they will learn how to read research as the academics do, they will be able to identify poor methodology, bad designs, and inadequately supported claims.

That this entire scenario could be reversed so that the academic vantage point on the proper uses of research is demeaned by teachers, should be obvious to all – because it is acted out in schools and colleges with depressing frequency. In all of this there is evidence of ignorance, misunderstanding, and lack of respect between communities that ought to be naturally and mutually supportive allies.

So, where is the helpful Guide I am supposed to suggest? Here it is, and it works equally well whether you think of yourself as a professional practitioner or as an academic scholar (or even if you want to become a real switch-hitter and be able to move comfortably between the two vantage points). Please understand that this Guide deals only with how to approach the task of being a research consumer. There are nuances and codicils to discuss, but all that can come in subsequent issues.

**“Find a report that you actually will read, and then begin by consuming the contents in your own way!”**

If you are interested in the topic of how different groups read research, an excellent place to start is with the following report and the attached list of references.

Bartels, N. (2003). How teachers and researchers read academic articles. *Teaching and Teacher Education*, 19, 737-753.

—  
This article was printed from Unlock Research - <http://www.unlockresearch.com>.  
© 2003- 2005 , Lawrence F. Locke. All rights reserved.