

# Bringing Health Literacy Research to Practice

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Health literacy has always been present within individuals, families, health professionals, communities, and health systems but the study and application of health literacy in the fields of adult education as well as health and medicine are relatively new. As with all new ideas, health literacy is in the early stages of developing a widely shared understanding and body of research. This article will briefly identify what research is, how research functions, and then suggest ways to put health literacy research to practice, particularly in adult education to help bridge the gap between research and practice and ultimately promote the use of new and effective tools to help people improve their lives.

## Why Research?

Research is the best tool for understanding what does and does not work, and why that is the case. Research is how we learn from effective programs and improve less effective programs.

Evaluation is perhaps best described as a specific type of applied research. Evaluating programs can help practitioners design the best program for the people they are trying to reach, understand what needs to be improved about a program while it is occurring, and demonstrate the successes and failures of a program after it has happened.

Research (including program evaluation) on health literacy is valuable in a number of specific ways. For example, research that documents the effectiveness of integrating health into literacy programs is very useful when seeking funding. When developing a health literacy curriculum, research that rigorously details previous efforts, including both the positive and negative effects, can help others learn from those experiences. Research on putting the best practices of health literacy in place within health systems can also focus on critically important questions of cost-savings and better health outcomes through, for example, preventing chronic disease. Ultimately, well-designed and communicated research can influence and direct policy at all levels by providing an understandable and effective evidence base for decision-makers.

### Defining Evidence

**Evidence-based:** The integration of professional wisdom with the best available empirical evidence in making decisions about how to deliver instruction.

**Professional wisdom:** The judgment individuals acquire through experience.

**Empirical evidence:** Scientifically-based research that is rigorous, systematic, objective, and peer-reviewed.

Source: Whitehurst, U.S. Department of Education's (DOE) Institute of Education Sciences (IES), 2002

## What is Evidence-based?

In the health and education fields, the use of evidence-based approaches and materials is increasingly emphasized. Research and evaluation gather evidence about how well a program or material works.

One way to think about evidence is to consider what it is not. Evidence is not (Perkins, 1999):

- A set of morals
- Casual conversations
- A brainstorming session
- Continuing the status quo
- Arguments in defense of past actions
- An opinion or value
- A new idea that seems good
- Something only a Ph.D. can collect

Valid (accurate) and reliable (trust worthy) evidence can be produced in multiple fashions. Findings that result from well-designed and implemented randomized control trials are often considered the 'gold standard' for evidence. However, for many health literacy programs a randomized control trial can be impractical, ineffective, or even unethical. This places health literacy researchers in a potential bind between the 'gold standard' of evidence and the realities of program implementation and evaluation.

### Qualitative or Quantitative?

Quantitative research methods generally gather findings in the form of numbers and rely upon statistical methods of analysis. If the number of participants is adequate and randomly sampled, then quantitative data can be used to draw conclusions that apply to a larger group of people with similar characteristics.

Quantitative research is useful for measuring the extent to which an intervention changes people's knowledge, attitudes, or behaviors as well as the physical and environmental outcomes associated with changes.

Qualitative research methods, like focus groups or individual interviews, are used to gather in-depth reactions and impressions from participants. Findings are generally gathered through stories or responses that are analyzed for their structure and content. Results are often not described numerically or used to make generalizations about a larger population. Qualitative research is useful for determining why people act and react the way they do and learning how to make changes to better meet people's needs or to better understand their ideas, issues, and concerns.

Increasingly, researchers are combining qualitative research methods such as those used in observational studies with quantitative research methods such as those used in randomized control studies. In this way, researchers hope to provide a more complete picture of which approaches are effective and why.

Randomized control trials randomly assign people to either an intervention group or a control group. The intervention group experiences an intervention - which could be a new curriculum, medicine, or program - while the control group does not. If people in the group that received the intervention change more than people in the control group, then researchers can begin to conclude that the intervention had an effect to the extent that change is statistically significant. However, it is possible that other factors may have made that change happen, so researchers need to carefully account for all possible reasons for the change.

Not all research studies are, or need to be, randomized control trials. Observational studies, for example, are descriptive studies using methods like focus groups or in-depth interviews. Observational studies answer questions such as how was the intervention used and how did people respond? Reports of expert committees and opinions based on experience may also be considered observational.

Some argue that non-randomized control trials produce weaker evidence. Others argue that some methods can produce more useful results than randomized control trials. The most important point is to select a research approach that delivers the most relevant and useful information to decision makers.

### **Challenges in Health Literacy Research**

As a relatively new field of research, health literacy has and is experiencing what can be called the normal growing pains of an applied scholarly endeavor. Perhaps most noticeable is lack of a widely agreed upon approach to measuring health literacy. There are numerous tools in existence, but these are better described as short screeners of health literacy rather than complete assessments. Primary critiques of the existing screeners are that the measures of health literacy were not built to test existing theories of health literacy and were mainly created to identify what happens when health literacy is not present in individuals versus how people or health systems use their health literacy and what happens as a result of those behaviors (Pleasant, McKinney, Rikard, 2011, Pleasant & McKinney, 2011).

Even given the current lack of an available gold-standard measure of health literacy, there is still a growing body of useful research and program evaluation on health literacy using both quantitative, qualitative, and mixed approaches to research and evaluation. We offer examples in the bibliography below.

### **How to Use Health Literacy Research**

One way to learn about health literacy and how it might impact your work is to form a study circle and read some health literacy research articles with your colleagues and discuss them. In study circles, people come together as a group to develop their knowledge and skills and determine how the latest research applies to their work.

There are many questions that can be asked of a health literacy research article. These range from questions about the methodology, such as ‘What is the study design and what are the implications of that design?’ to theoretical questions, such as ‘What theory of health literacy is this research based upon, if any?’

Health literacy is slowly transitioning from early conceptions of health literacy as indicating a patient’s inability to read health information to the idea that health literacy is a theory of health behavior change. Health literacy as a viable theory of behavior change proposes that in order to successfully change health behaviors, people and their health professionals need to work together to help each other find, understand, evaluate, communicate, and then use information as the basis for an informed decision. Study circles can discuss where along that continuum an article lies and what that means for their ability and desire to put the information into practice in their programs.

**--- End Article ---**

The following is an annotated bibliography of selected research articles on health literacy. They were selected by the authors as examples that could be used in study circles for professional development by literacy and health professionals. For information on how to find these and other health literacy research articles, ask a librarian.

Baur, C. (2010). New directions in research on public health and health literacy. *Journal of Health Communication*. 15:42-50.

<<http://www.tandfonline.com/doi/full/10.1080/10810730.2010.499989>>

The author related public health and health literacy and looks at four frameworks and their utility in shaping research questions to expand our understanding. The four frameworks are related the Healthy People, Ten Essential Public Health Functions, health promotion, and health disparities. Each framework poses questions and uses methods that can help enhance our knowledge of health literacy and our ability to improve health literacy from multiple directions.

Coleman, C., Kurtz-Rossi, S., McKinney, J., Pleasant, A., Rootman, I., Shohet, L. (2009). *Calgary Charter on Health Literacy*. Available at:

<[http://www.centreforliteracy.qc.ca/Healthlitinst/Calgary\\_Charter.htm](http://www.centreforliteracy.qc.ca/Healthlitinst/Calgary_Charter.htm)>

The Calgary Charter on Health Literacy is a product of an international collaboration between multiple authors that is endorsed by a growing number of individuals and organizations. The Charter proposes a definition and understanding of health literacy and a set of core principles to support the development of curricula and evaluation tools that

### **What’s a study circle?**

You can form a study circle to read and discuss any topic. For more information on how to create a health literacy study circle, visit the website of the National Center for the Study of Adult Learning and Literacy (NCSALL) [www.ncsall.net](http://www.ncsall.net) or go directly to <http://www.ncsall.net/?id=995>

improve health literacy for diverse audiences and purposes. This work specifically avoids labeling any groups and proposes that health literacy is a function of individuals, health professionals and health systems that can be expressed differently in different contexts but is always based on the same underlying definition.

Hohn, M.D. (2007). A peer leadership and empowerment approach to health literacy education. *Literacy Harvest* 13: 20-26.

<<http://www.lacnyc.org/resources/publications/harvest/HarvestFall07.pdf> >

This article describes the Massachusetts Adult Basic Education System's experience with health literacy using contextualized, student-centered instruction. Student health teams identified student interest and need, and engaged in peer teaching. Teachers reported that health topics "energized" their literacy instruction while students reported learning about specific health topics and changing their attitudes and behavior regarding their health and the health of their families. The author used focus groups and interviews with students, teachers, and program directors to gather data to better understand the impacts and outcomes of the health literacy work.

Kichbusch, I.S. (2001). Health literacy: Addressing the health and education divide. *Health Promotion International*. 16(3): 289-297.

<<http://heapro.oxfordjournals.org/content/16/3/289.full>>

This is a discussion of health literacy as an approach to addressing health status and health inequities. The author argues that health literacy should play an important role in the global alliances to combat disease and health inequities. Overall, the argument is based on a theory of health literacy as a source of empowerment and social capital.

Kurtz-Rossi, S., Coyne, C., Titzle, J. (2007). Using research to inform health and literacy program development: results from the HEAL: BCC evaluation study. *Literacy Harvest* 13: 38-42. <<http://www.lacnyc.org/resources/publications/harvest/HarvestFall07.pdf>>

This study evaluated the impact of integrating breast and cervical health content into adult basic education classes. Researchers used a quasi-experimental design administering pre-and post-surveys and conducting focus groups. The study found increases in knowledge about breast and cervical cancer and in the proportion of women learners who went for Pap tests post intervention. The article also provides a detailed description of the HEAL: BCC Curriculum and what teachers and learners thought about the program.

Kurtz-Rossi, S. Duguay, P. (2010). Health information literacy outreach: Improving health literacy and access to reliable health information in rural Oxford County Maine, *Journal of Consumer Health on the Internet*, 14(4): 325-340.

<<http://www.tandfonline.com/doi/full/10.1080/15397734.2010.524089>>

This study demonstrates the use of evaluation in the development of health literacy curricula. The evaluation was primarily formative but also included pre-/post-surveys completed by youth and young adults immediately before and after participating in lessons. The curriculum was designed for use with middle and high school students and young adults in non-formal adult education setting.

Levy, S. et al. (2008). Health literacy curriculum works for adult basic education students. *Focus on Basics*. 9(B): 33-39.

<[http://www.ncsall.net/fileadmin/resources/fob/2008/fob\\_9b.pdf](http://www.ncsall.net/fileadmin/resources/fob/2008/fob_9b.pdf)>

This study used an experimental research design to test whether literacy and health literacy skills can be improved among adults with limited literacy if both sets of skills – literacy and health literacy – were addressed in one curriculum. Forty two adult basic education sites participated in the study that adds evidence to support the use of health and literacy curricula in adult education programs.

Nutbeam, D. (2000). Health literacy as a public health goal: A challenge for contemporary health education and communication strategies into the 21<sup>st</sup> century. *Health Promotion International*. 15(3): 259-267.

<<http://heapro.oxfordjournals.org/content/15/3/259.full>>

This article connects health literacy with health education and health promotion as well as theorizes connections between health literacy and outcomes related to social, environmental, and health conditions. Additionally, this article proposes a theory of health literacy that includes levels of basic / functional, communicative / interactive, and critical literacy.

Pleasant, A. (2008). A second look at the health literacy of American Adults & the National Assessment of Adult Literacy. *Focus on Basics*. 9(B): 46-53.

<[http://www.ncsall.net/fileadmin/resources/fob/2008/fob\\_9b.pdf](http://www.ncsall.net/fileadmin/resources/fob/2008/fob_9b.pdf)>

This article reframes the discussion about health literacy and the results of the National Assessment of Adult Literacy health literacy component. While the field of health literacy has come a long way in a short time, this article argues that the field needs to advance from treating health literacy as an individual issue of basic literacy and move toward treating health literacy as an important, yet complex, social determinant of health.

Pleasant, A. McKinney, J. & Rikard R.V. (2011). Health Literacy Measurement: A Proposed Research Agenda, *Journal of Health Communication*, 16:sup3, 11-21.

<<http://www.tandfonline.com/doi/abs/10.1080/10810730.2011.604392>>

Although the field of health literacy is experiencing tremendous growth in terms of producing peer-reviewed journal articles and attracting practitioners, the foundation of that growth is potentially unstable. Despite a steady increase in their number, existing measures and screeners of health literacy are not based on an accepted conceptual framework and fail to align with the growing body of theoretical and applied work. Existing measures are mainly focused on assessing what individuals can read and understand in clinical contexts. This leaves important factors untested, such as how individuals use information, and how health professionals and systems communicate with patients. This article outlines key elements of a proposed research agenda focusing on development of a new, comprehensive approach to measuring health literacy.

Zarcadoolas, C., Pleasant, A., & Greer, D. (2005). Health literacy: can the public be healthy without it? *Health Promotion International*. 20: 195-203.  
<<http://heapro.oxfordjournals.org/content/20/2/195.full>>

Using the anthrax threat in the United States as a case study, this article proposes an expanded model of health literacy that includes fundamental, scientific, civic, and cultural domains.

### **About the authors...**

**Sabrina Kurtz-Rossi** is Principal of Kurtz-Rossi & Associates where she works as a health literacy educator and independent consultant. As a health literacy consultant, Ms. Kurtz-Rossi offers a variety of health literacy services including professional development trainings for health care providers and literacy practitioners, health and literacy curriculum development, low literacy health education material development, Web-based health literacy education, and health literacy research and program evaluation. She is an adjunct instructor at Tufts University School of Medicine and the University of New England where she teaches skills-based health literacy and plain language courses.

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