

Going Beyond Google: Literacy Across the Disciplines
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ABSTRACT

There is accumulating evidence that students have serious problems with reading and lack the skills to locate, evaluate and synthesize sources in research in any field. This presentation sets a clear definition of academic critical literacy and reviews the evidence of students' problems with information literacy and reading. The talk offers specific strategies for Monday morning along with one research assignment to move students beyond Google. To help students attain the academic critical literacy that is the key to success during and after college, every faculty member in every course and every discipline has the responsibility to work on information literacy and reading skills.

INQUIRY PROJECT ASSIGNMENT (excerpt)

You must keep a research notebook for this project. The notebook should contain both a running commentary on your work as your project unfolds and a compilation of your source materials. You will want to write down your question(s) and preliminary sources in your research notebook, and you should plan on bringing your notebook to class every day from now to the end of the project. If you keep the notebook electronically, you'll need your gizmo, and you will need to print out the notebook to submit with your final report. For at least three of your sources, in your research notebook, you will need to complete a process designed to help you read and understand the sources fully and make effective use of them in your report.

The process is as follows:

1. Choose your three sources carefully; only sources that have citations and a Reference or Works Cited list should be used.
2. Evaluate each source for these issues: authority, accuracy, currency, relevancy, bias, appropriateness. We will discuss how to make these judgments.
3. Read the source carefully and present in a few paragraphs or pages a summary of at least 5 key ideas relevant to your topic. These can be your notes on your reading of the source.
4. Compare and contrast the ideas presented in each source with other material you have examined. Enumerate two similarities or differences between this source and your others.
5. In 100-200 words, write out your plan for deploying this source in your paper.

Follow this process for at least three of your sources and include your notes in your research notebook.

CASE STUDIES

Case A: The Prevalence of Literacy Skills in Physical Therapy

SAMPLE OF RESEARCH NOTEBOOK READING NOTES

Source 1: "How Physical Therapists Can Strategically Effect Health Outcomes for Older Adults with Limited Health Literacy"

1) [accuracy] Reference list

2) [authority] The authors are all physical therapists with a doctorate degree in physical therapy giving them authority. Their high level of education and cited work of other studies also indicate authority as well as accuracy. The database that the article was retrieved from

indicated that the paper was peer reviewed. The article was published in 2012 making it current. There is bias as the authors strategically aimed to review articles on methods to work with individuals of low literacy levels. In addition, the paper is relevant and appropriate for my research topic of health literacy.

3) [5 key ideas] First, the article discussed the widely accepted definition of health literacy and how the skills that pertain to it are necessary to read health materials.

Ennis et al. (2012) [the authors] discussed the prevalence and consequences of limited literacy. There's a significant number of Americans at a low literacy level.

Identification of "red flags" that indicate limited literacy were reviewed and a list of signs are [sic] provided in a table.

Intervention strategies for patients with limited literacy were summarized and a list of resources to educate professionals is provided.

The effect that printed materials have on health literacy and the patient experience indicated that most health education materials are written at the 10th grade level or higher. Guidelines are provided in the text to simplify written health materials.

4) [synthesis] The information provided in this article is similar to many of the other sources I've collected. It describes the complexity of written health materials as well as the effect that limited literacy has on health care, specifically physical therapy.

5) [plan for use] In my paper, I will discuss some of the intervention strategies discussed by Ennis et al. (2012) when working with patients with limited literacy. Specifically, I will write about the initial evaluation and the importance of it in physical therapy. Printed materials will also be integrated in the literature review and I will also include some of the suggestions to improve readability such as avoiding technical terms and medical jargon. Much of the information in this article answers my research question regard written materials in health care and physical therapy. This information will be written in the beginning of my section of the background review of the literature.

EXCERPT FROM PAPER: Background Review of Literature

The topic of health literacy is a relatively recent area of interest in the research and health community. There are various publications which are addressed the topic as a foundation of the patient experience. Ennis et al. (2012) stated that basic and effective literacy skills are necessary in order to read consent forms, prescription information, food labels, rehabilitation instructions, and appointment slips, or to fill out a health insurance form and calculate a health care bill. The readability of materials for patients is a challenge as most health education materials are written at the 10th grade level or higher and may be too complex (Ennis et al., 2012).

Physical therapists need to utilize various communication strategies to carry out an effective plan of care and achieve outcomes for their patients. Ennis et al. (2012) suggested a number of ways in which their goals could be obtained. They claim that the physical therapist's initial evaluation is a critical opportunity to utilize communication strategies to help determine what the patients' values are and to determine mutual goals. Setting these goals and establishing limitations in literacy make the initial evaluation very important. The evaluation can also provide an opportunity to assess learning styles to assist the patient in ascertaining which teaching methods (visual, auditory, or hands-on) will be most beneficial. Ennis et al. (2012) continued on to stress the importance of effective education as the foundation of relationships with patients in the initial meeting and claimed that the physical therapist can begin to identify literacy issues and subsequently develop suitable patient education materials and treatment.

Ennis et al. (2012) stated that physical therapists who consider purchasing or creating their own printed education materials need to aim for simplicity, at a fifth-grade

reading level or at the lowest level at which the content can be coherently transcribed. According to the Federal Plain Language Guidelines (2011), the three main elements to consider when creating simplified written materials are: to write in a way that makes the audience feel comfortable, to organize effectively so that the text meets the reader's needs, and to write in such a way that the text is simplified and avoids complexity.

...

Often, when one thinks of literacy, reading and writing are skills that are assumed to be the primary sources to measure a person's competence and performance. However, in health care settings, other skills come into play. One could infer based on Ennis' research (2012) that making changes to the level at which health materials are written will improve the patient's overall experience and outcome.

Case B: Cognitive Neurology: Literacy and the Brain

EXCERPT FROM PAPER: Literature review

Furthermore, intelligences that related explicitly to the left hemisphere of the brain, such as linguistic intelligence, play a fundamental role in determining language development. French scientist and author, Stanislas Dehaene (2009), writes about "the brain's letterbox" in his book, *Reading in the Brain: The Science and Evolution of a Human Invention*. What Dehaene is referring to is the left occipito-temporal area, also known as the "visual word form area." The author states, "The left occipito-temporal 'letterbox' identifies the visual form of letter strings. It then distributes this invariant visual information to numerous regions, spread over the left hemisphere, that encode word meaning, sound pattern, and articulation" (Dehaene, 2009, p. 63). Dehaene writes about a case dated back to 1887, when a French neurologist, Dr. Joseph-Jules Dejerine, first examined a patient, Mr. C, who was eventually diagnosed with verbal blindness, today termed "pure alexia." According to Dr. Dejerine, "the patient is only blind to letters and words. Visual acuity remains excellent, objects and faces are easily recognized" (Dehaene, 2009, p. 55). Later, after Mr. C passed away, an autopsy was performed and it was revealed that lesions "occupied the occipital lobe, and particularly the circumvolutions of the occipital pole, starting at the base..." ...Dehaene later proposed that the visual recognition of letters rests in the brain's letterbox, and that Dejerine's proposal was not quite correct, as a result of Mr. C's letterbox not being complete destroyed, but rather disconnected.

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