

# Literacy, Document Design and the Florida Controversy

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Without taking any sides in the current controversy in Florida, USA, about who is or is not entitled to the electoral votes in that state, it is of interest to me to note that a large amount of the dispute concerns the use of what are purported to be poorly designed voting documents. In Palm Beach county, where much of the concern for poorly designed voting ballots is centered, there are some 22 percent of adults in the National Adult Literacy Survey's (NALS) lowest level of literacy as determined by Steve Reder's synthetic literacy estimates in a report disseminated by the National Institute for Literacy. In West Palm Beach City, some 32 percent of adults scored in synthetic NALS Level 1. This means that they would be expected to have difficulty with documents that are of moderate complexity in their design.

As I looked at images of the Florida disputed ballots on the television, I noted that they appear to pose some problems of "set" or "S-R Compatibility" as those concepts have been understood for some 50 years in the "human factors engineering" field of psychology. The idea of "set" means that with conventionally used documents, people develop habitual ways of using them. For instance, when we read lists, our tendency is to read down a list of items. So on the Florida disputed forms, on the left hand page of the ballot, one would read down from Bush to Gore, without noticing, perhaps, that the right hand page of the ballot showed another candidates name in the second slot. To read down a list jumping alternately from a left hand list on one page to a right hand list on another list violates the principle of "set" that we typically use in reading lists.

The idea of "S-R Compatibility" refers to the tendency to read stimuli and to make responses in a coordinated manner. So in the case of the disputed ballot, one would read the Bush name and the coordinated arrow and dot to be punched, then, in reading down to the second name, Gore in this case, one would typically look to the second dot as that dot that is S-R compatible with the second place name. But in the case of the Florida ballot, if one punched the second dot, one would punch the selection for the candidate on the opposite page instead of for the one thought to be listed as in second position and coordinate with the second dot.

These kinds of violations of "set" or "S-R Compatibility" in document design are likely to pose more of a problem for the least literate adults because they are burdened by both the requirement to occupy working memory with decoding the printed language while also trying to figure out the design of the document.

I think the current conflict suggests that, whoever wins the vote in Florida, the next President needs to recognize that literacy is indisputably necessary to the conduct of civic life in the age of information. This means that the next President needs to work with the Congress and others to make sure that the funding is forthcoming that is needed for an Adult Education system that can help the millions of adults in Florida and across the nation achieve the literacy needed to both design and effectively use the documents that we trust to accomplish the most sacred rights and responsibilities of U. S. citizenship, including the selection of the President of the United States.

