For easy-to-read handouts, take layout into account

Score the document on design as well as readability

The health community has become increasingly aware of the need for health information written at a level most patients can understand.

To meet this need, many in the field of patient education have taken on the task of learning the guidelines of plain language, the recommendations in the current health literacy research, and how to evaluate the written materials they are producing and using in their organizations, says Doug Seubert, guideline editor in quality improvement and care management at Marshfield (WI) Clinic.

Much of the focus, however, is placed on the readability of the text: using simpler words and shorter sentences, avoiding medical and technical jargon, and using a readability calculator to establish a reading ease or reading grade level score between a sixth to eighth grade level, he adds.

"Even when we do this, we still end up creating documents that are difficult to read if we don't also evaluate the layout and design of the document," says Seubert.

For example, if the font is too small, the document will be difficult to read, even if it is written at an appropriate reading grade level for patients. Well-chosen fonts, using shorter line lengths, and including generous margins and white space in a document make it easier to read. These and other design elements control the legibility of a document, which is part of its overall readability, he explains.

While there are tools to evaluate the readability of text, Seubert found there are very few tools that evaluate layout and design and how they impact the readability of documents.

He created a toolkit called "Improving Readability by Design" for a presentation at the 2009 Wisconsin Health Literacy Summit.

"There are a number of document design checklists, manuals, and handbooks that give recommendations for designing patient education materials, but to my knowledge there isn't a design evaluation tool that produces a numeric score like readability calculators, so that is what I attempted to do," explains Seubert.
Evaluating layout & design

The design readability scorecard is based on seven design elements that include font, paragraphs, line length, grouping, graphics, color, and white space. Each design element can have a positive or a negative effect on readability, depending on how it is used.

The scorecard lists the positive and negative aspects of each design element and provides a way to score the design and layout of a document. Points are added to the score for design elements that enhance readability. Points are subtracted from the score for design elements that make a document more difficult to read.

For example, a document written in Times New Roman or comparable font and at least 12 points in size would score positive points. If that font was italicized, underlined, or written in all caps, for example, the document would have points subtracted from the total, because text that is italicized, underlined, or written in all caps is harder to read.

After all seven design elements are evaluated and scored, the points are totalled to determine the document's overall design readability score. A document can have a maximum of 65 points.

The documents that score closer to 65 are designed to be easier to read. Documents that score in the 45 to 50 range have some minor design flaws that should be corrected before using the document with patients. Documents that score below 45 should be redesigned before use, according to Seubert.

Seubert selected the seven design elements used for layout and design evaluation after reviewing several manuals and handbooks on document design. He said he noted most manuals covered the same elements, although they were not always referred to by the same name or defined the same way.

"The elements I included could be more accurately described as categories, because each one covers more than one concept," states Seubert.

For example, fonts have two main considerations - size, commonly measured in points and picas, and a font's classification. The two main types of fonts are serif and san serif, and each category has font families. A common family of sans serif fonts is Arial. Within that family of fonts are Arial, Arial Black, and Arial Narrow. Each of these can also be bold, italicized, or both, which creates a myriad of combinations and variations within each font, explains Seubert.

One design element on the scorecard was titled "grouping" by Seubert and includes bulleted lists, numbered lists, tables and figures, and other methods used to group information together other than standard prose paragraphs.

Seubert says a few manuals and handbooks he uncovered during his research provide specific recommendations for margins and white space; however, many provide only vague suggestions.

"I think the reason so many of the recommendations are vague is that design is very subjective. After all, document layout and design is often referred to as 'graphic arts.' The very term design implies a subjective, artistic quality," explains Seubert.
Often, when people choose fonts, they select the ones they prefer or those they think look good on the page. Few think about the preferences of the end users, perhaps mistakenly thinking that everyone shares common preferences, says Seubert.

The toolkit doesn't resolve the issue of subjectivity. Seubert says there is no value to recommending all documents have a 1-inch margin, for example. While a 1-inch margin works for a letter, it does not work for a brochure. It depends on the type of document.

"What I tried to do is provide a way to assign an objective, measurable, quantitative score to a document based on subjective, variable concepts of good design," explains Seubert.

**SOURCE**

For more information about "Improving Readability by Design" and the scoring method, contact:

• **Doug Seubert**, Guideline Editor, Quality Improvement & Care Management, Family Health Center/Community Health Access, Marshfield Clinic, 1000 N. Oak Ave., Marshfield, WI 54449. Telephone: (715) 387-5096. E-mail: [seubert.douglas@marshfieldclinic.org](mailto:seubert.douglas@marshfieldclinic.org).

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**15 resources explain best design practice**

*Learn about designing patient education materials*

To create a scorecard to evaluate how layout and design impacts the readability of an educational handout, **Doug Seubert**, guideline editor in Quality Improvement and Care Management at Marshfield (WI) Clinic, looked at 15 manuals, handbooks, and resources about designing patient education materials.

He cross-referenced them to compile the list of seven design elements included on the scorecard.

"I used these 15 resources to form a consensus for what makes up the positive and negative point structure on the scorecard," he states.

Following is his list of resources:

- Beyond the Brochure: Alternative Approaches to Effective Health Communication (AMC Cancer Research Center and Centers for Disease Control and Prevention).
- Clear & Simple: Developing Effective Print Materials for Low-Literate Readers (National Cancer Institute)
- Easy-to-Read NYC: Guidelines for Clear and Effective Communication (City of New York, Mayor's Office of Adult Education)
- Guidelines for Developing Easy-to-Read Health Education Materials (Washington State Department of Health)
- Making Health Communication Programs Work (National Cancer Institute)
- Patient Education Materials: An Author's Guide (University of Utah)
CNE Question

12. According to Doug Seubert, guideline editor in Quality Improvement and Care Management at Marshfield (WI) Clinic, only written text should be evaluated for readability not the layout and design.

A. True.
B. False.

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