Keep It Simple: Integrating Human Factors into Guidance Documents to Drive Reliability

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Why say "a half dozen" when "six" delivers the same message more clearly?

The question points to a critical consideration in the creation of health care guidance documents: Say what you mean, and say it as clearly and simply as possible. It also gets to the heart of one of the fundamental drivers of High Reliability: the understanding of human capabilities and limitations and the integration of these human factors into the creation of more efficient, safer processes.

AT A GLANCE

- Integrating human-factors principles into the creation of guidance documents optimizes the usability of the documents and supports the reliability of the processes being explained.
- The Focus and Simplify℠ model provides a framework for changing processes and simplifying procedures to reduce risk and improve effectiveness.

High Reliability organizations love simplicity. This extends to documents — warning labels, instructions, flow sheets and spreadsheets, for example — that are meant to help individuals and teams carry out intended actions. If something "must" be done, they don't say that it "should" or "could" or "might" be done; they say that it "shall" be done. If they mean "six," they say "six." They don't say "a half dozen," because language such as that adds no value. It also introduces the possibility that the information might be misinterpreted or disregarded entirely, both indicators of communication failure — a common cause of inadvertent patient harm in health care.

In evaluating guidance documents, organizations should recognize that poor human factors might inhibit the usability of the material, and thus the understanding of and adherence to the guidance being communicated. Next, they should create a process for systematically improving human factors in guidance documentation.

Evaluating Guidance Documents for Usability

Here are some of the questions to consider when evaluating guidance documents for usability.

- Is the language correct and succinct?
- Are the words simple, direct and unambiguous?
- Does the language focus the reader's attention on the procedural steps?
- Is the information understandable to as many readers as possible?

One way to gauge the appropriateness of guidance language is to use the Flesch-Kincaid reading comprehension measure that is built into the Tools section of Microsoft Word, which roughly corresponds to reading grade level. To be consistent with good human factors, general guidance should range between levels 6 and 8. Warnings and precautions should be at level 4.

An example of the difference is evident in the language used in the following medicine labels.

> "Keep this medicine and all medicines out of reach of children. In case of accidental overdose or if someone else takes this medicine, consult a physician immediately." (Flesch-Kincaid 11.2)

> "Keep out of reach of children. Call poison control for accidents." (Flesch-Kincaid 4.7)

The short, concise sentences in the second label are written in simple, familiar words, which minimize reading effort and make the information understandable to as many readers as possible.

Creating a Systematic Improvement Process

To optimize safety and reliability across operations, health care leaders should focus on work process simplification (changing processes to reduce risk and improve effectiveness) and simplifying procedures (with clearly articulated action steps that highlight points of risk and provide appropriate detail). The Focus and Simplify℠ model is a powerful tool for creating an improvement process to achieve this dual aim.

The model is a collection of methods for streamlining processes and rewriting policy and protocol. It comprises a five-step framework that forces stakeholders to think about how each process should be structured to maximize its effectiveness to users.

1. Map the process as it is currently performed by identifying the steps, roles, handoffs and transitions, and using a flow chart to clearly visualize and represent the process.
2. Identify the requirements (internal, external, regulatory, professional and service) that the process must meet.
3. Identify qualitative and quantitative measures of process effectiveness and link them to strategic imperatives and operational tactics.
4. Evaluate the process for risk and ineffectiveness, including the risk and probability of failure, error potential, redundancy or low value.
5. Modify the process to reduce risk and improve effectiveness.

Unnecessary complexity in the written word has a long history. Winston Churchill once observed, "This report, by its very length, defends itself against the risk of being read." And closer to our world of patient safety, quality and reliability, a chief nursing officer asked us whether the way they had written their medication policy was causing medication error. Our finding was "No, there was little evidence that anyone was using that policy."

These anecdotes illustrate the importance of looking at guidance documents through the same human-factors lens we use in the design of devices and the environment of care.