How to Simplify Your Safety Management Systems with Focus on the User – the Seafarer

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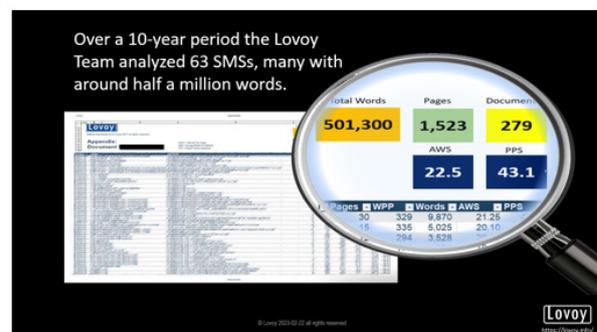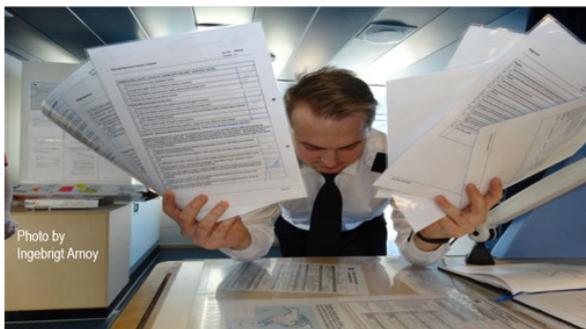
Complex SMSs – Problem and Potential for Improvement

Most Safety Management Systems (SMS) have become too big, too complex, and lost sight of the user – the seafarer. An overly complex SMS is a problem but also a potential for improvement. There is usually a link between how well we understand problems we are trying to improve and the results we get. It is therefore worth spending some time discussing why SMSs often become overly complex. Over a 10-year period the Lovoy Team analyzed 63 SMSs, many with around half a million words.

SMS Simplification Challenges

Most companies want to simplify and make their SMS more user-friendly. But they often conclude that there are too many obstacles to navigate. Surprisingly, many believed it was impossible to make a SMS that complies with vetting standards and at the same time be user-friendly. Second, they believed they could not spare the workforce needed to rewrite their SMS.

Based on this, we researched the following questions:

1. Can a SMS be both user-friendly and in compliance?
2. Will simplifying a SMS require more resources than it saves?

We followed 23 shipping companies who recently simplified and improved their SMSs using their own people. They simplified by washing out filler words, double talk and changing from passive to active sentences. They used the Lovoy Text Washing Method to simplify without removing facts or dumbing down the text. They replaced overly complex words such as "elucidate" with more commonly used words such as "explain" or "make clear". They continued using maritime terms such as "enclosed space", "forecastle", and other IMO standard marine phrases. You can read more about text washing methods on https://lovoy.info/
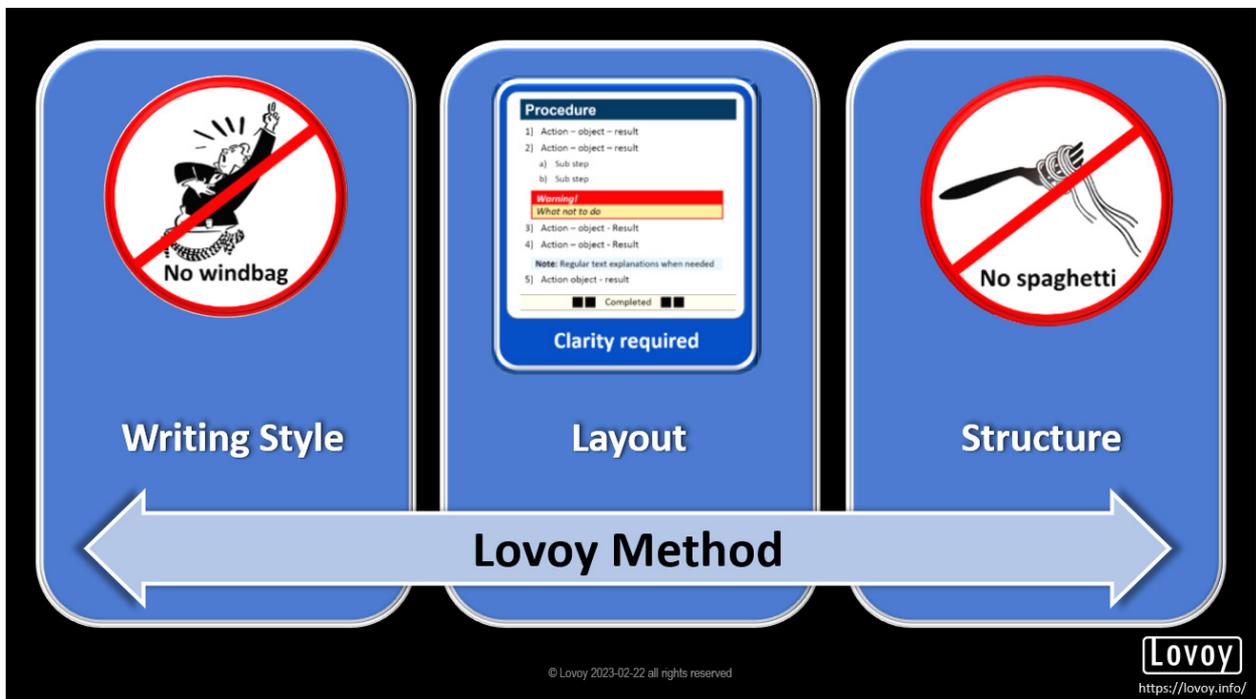
Risk of Oversimplification

If someone believes the solution is to remove the "excessive" details, they may end up removing facts needed by inexperienced users and for audits. They risk losing years of company experience. We call this oversimplification.

Spaghetti SMS Structure

We found a bigger problem than overly complex text. We called it spaghetti SMS structure. It is a result from copying and pasting text blocks from codes and guidance material without adapting to the seafarer's real-life workflows. How well we succeed with restructuring is our single most important success factor. We estimate the SMS simplification success factors to be 80% restructuring and 20% text washing.

One cause of spaghetti SMS structure is that many believe we should not mix guidance and mandatory actions. They split these into different sections. The seafarers must read several sections at the same time. Too many sections covering the same topic result in excessive cross referencing.

A better alternative is to gather material belonging together in one section instead of in many different sections. If we focus on the end users, we must go in the footsteps of the person doing the job. Some steps are mandatory, other items are guidance. But the most user-friendly way is to keep them together in one step by step procedure. We still need to clarify what is guidance and mandatory. The words we use tells the user if a step is mandatory or guidance.

> **Shall** is mandatory
> **Should** is a recommendation
> **Consider** indicates to use judgement and decide

Results

Untangling spaghetti combined with text washing allowed the companies to simplify and improve their SMSs without oversimplification. Feedback from their seafarers and auditors were positive. Surveys typically showed around 70 % increased perceived usability. The audit results were better. It was easier to prepare for audits and adapt to new standards. When the SMS is more concise and clear, it is easier to notice if something is missing. The companies reduced the word count but added more facts. Less became more.

Who Should Rewrite the SMS?

Our second question is: Will simplifying a SMS require more resources than it saves? To answer this, we must first decide who should rewrite the SMS. Should we use a writer with good English writing skills but little knowledge of the content or should we use a subject expert? We tested both options and found that:

- True simplicity comes from thorough understanding
- People without good understanding of a subject often insist on unnecessary complexity
- Simplification without understanding is difficult

Based on this we decided to test if we could train seafarers to write good SMS procedures. Today, most seafarers come from countries where English is not the native language. We decided to include what language scientists call a controlled language in the Lovoy Method. It is English but with strict rules for grammar, vocabulary, layout, and structure. When used correctly, it reduces complexity without losing facts. It makes it easier for both native and non-native English speakers to write user-friendly procedures.

SMS Writer Training

We designed an online training program to train seafarers to become SMS writers. We tested it with seafarers and office staff in different parts of the world. With training and practice, most writers produced high quality procedures. We got good results from non-native English-speaking nations. The controlled language allowed shipping companies to use their own people to reduce large volumes of complex inconsistent text to clear, easy to use text.

How Many SMS Writers?

Some companies involve many writers in their SMS simplification projects. They expect each writer to rewrite the SMS in addition to their daily tasks. This may seem like a good solution, but it takes more time and is not very efficient. We tested different options and found that it usually takes several part-time writers more than a year to rewrite bridge procedures.

We also found that one full-time writer with good support can untangle and rewrite bridge procedures better in only three months. In three months, one writer did more than several writers in a year. One supported fulltime writer is faster, requires fewer people and gives better results with less risk. One supported fulltime writer will save many months of project time. After a writer makes new draft procedures, you must use a larger group to review and approve them. We also recommend testing on selected ships. After rewriting the SMS, your traditional admin team can continue maintaining the SMS in the same manner as before the simplification project.

Conclusions

The answer to our first question is yes. A SMS can be both user-friendly and in compliance.

The answer to our second question is: If you do it right, you will save time after you simplify your SMS. The recovery period depends on how efficiently you organize the SMS re-writing. Using one fulltime current seafarer is clearly the most time efficient option.

Lovoy Training and Support

Lovoy offers training and support to shipping companies wishing to use their own people to simplify and improve their SMSs. For more information contact terje@lovoy.info

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Resources

The following is available at https://lovoy.info/

- Simplification Wins Safety Award (Video)
- Offshore Production SMS (Video)
- BSM Navigation Procedures (Video)
- New Teekay Nav Procedures (Video)
- User-Friendly Procedures are Used More (Video)
- Simple Word Dictionary