

# Evaluation of List vs. Paragraph Text Format on Search Time for Warning Symptoms in a Product Manual

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# Introduction

- Advent of computer networks has dramatically increased the amount of information available to people.
- Most text is paragraph/prose-type format.
  - May not be the best way to present information when the task is search.

# Introduction, cont.

- Research findings
  - Information acquisition assisted with text in list format
    - Simpson & Casey, 1988
  - List format facilitates scan of textual material
    - Galitz, 1989
  - Product warnings in outline format increase compliance
    - Desaulniers, 1987

# Introduction (continued)

- Users need to easily acquire important information.
- Product manuals: Is list format better than paragraph format?
- Present study manipulates format of TSS symptom information (adverse reactions) in a product (medical device) manual.

# Method

- Participants
  - 20 total ( $M_{age} = 27.6$ ,  $SD = 9.75$ )
  - 11 were females
- Materials
  - Ortho® diaphragm product manual
    - 2 versions (original paragraph vs. list)
    - Identical except for formatting of TSS symptoms on page 21

Primary symptoms of TSS are sudden high fever (usually 102° or more), and vomiting, diarrhea, fainting, or near fainting when standing up, dizziness or rash that looks like a sunburn. There may also be other symptoms of TSS such as aching of muscles and joints, redness of the eyes, sore throat and weakness. If you have sudden high fever and one or more of the other symptoms, remove your diaphragm and consult your physician immediately. Women with a known or suspected history of TSS should not use the diaphragm.

**Figure 1:  
TSS Symptoms  
(Paragraph Format)**

Primary symptoms of TSS are sudden high fever (usually 102° or more), and one or more of the following:

- vomiting
- diarrhea
- fainting, or near fainting when standing up
- dizziness
- rash that looks like a sunburn
- aching of muscles and joints
- redness of the eyes
- sore throat
- weakness

If you have sudden high fever and one or more of the other symptoms, remove your diaphragm and consult your physician immediately. Women with a known or suspected history of TSS should not use the diaphragm.

**Figure 2:  
TSS Symptoms  
(List Format)**

# Method (continued)

- Procedure
  - Two parts
    - Reading scenario and finding answer
    - Free recall of TSS symptoms
  - Participants tested separately
  - Gender-specific questionnaire
  - Time recorded
    - Total time
    - Warning page

# Method, cont.

An association has been reported between diaphragm use and Toxic Shock Syndrome (TSS). This is a serious condition that could be fatal.

You use a diaphragm. This morning you notice a sudden 102-degree fever and you feel faint when you stand up. Could these be symptoms of TSS according to this manual?

**Figure 3: Scenario and Question given to Females**



# Method (continued)

An association has been reported between diaphragm use and Toxic Shock Syndrome (TSS). This is a serious condition that could be fatal.

Your female friend, relative, or significant other uses a diaphragm. She begins to complain to you about a sudden 102-degree fever and feels faint when she stands up. She needs your help to figure out if these could be symptoms of TSS. Is it according to this manual?

**Figure 4: Scenario and Question given to Males**

# Results

Format	Examination Time (seconds)			
	Total Manual		Warning Page	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
List	66.15	51.07	6.72	2.46
Paragraph	48.61	12.64	16.88	8.02

**Table 1: Examination Times by Format Type**

# Results, cont.

Symptoms Recall		
Format	<i>M</i>	<i>SD</i>
List	3.30	0.67
Paragraph	2.90	1.29

**Table 2: Symptoms Recalled by Format Type**

# Results, cont.

- Mann-Whitney U Test
  - Significant effect of format for warning page
    - $\underline{U} = 1.00, p < .001$
  - No effect of format for total time
    - $\underline{U} = 44.5, p > .05$
  - No effect of format for TTS symptoms recall
    - $\underline{U} = 31, p > .05$

# Discussion

- Faster search times when viewing the list format warning page.
- Lack of overall effect for total manual reading time.
  - Majority of manual was identical
  - Individual differences in reading speeds
- List format did not significantly increase recall
  - With list, spent less time scanning that page
  - By finding faster, less attention given to other info.
  - Small sample size limited power

# Future Research

- Determine if list format can aid incidental memory.
- Examine the extent to which the effects will generalize to
  - other products
  - other owner's manuals & on-product labels
- Surface area issue
  - Matching “footprint” by changing font size, line spacing, and using multi-column list