

# **Concordia University**

# **Engineering & Computer Science**

## BCEE 6961 GRADUATE SEMINAR IN BUILDING AND CIVIL ENGINEERING

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Be consistent: if O.A. then J.A. or just J.

REPORT

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## WRITING ABOUT NUMBERS

Frederick Mosterller. PH. D

IF there is one sure way to insult someone, just spell the person's name incorrectly.

Fred Mosteller died a few years ago, but I learned a lot from him, and mis-spelling his name now annoys me.

And it's PhD, not PH.D

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# STUDENTS:

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#### **FALL 2015**

#### Introduction

There are no rules when writing about numbers. But it is important to write correctly in order to communicate well with the reader.

This report provides advice and examples on writing about numbers. First it discusses the allocation of numbers and then it provides some advice on problems that can be found in the text and also makes (! careful) some recommendations about numbers in tables.

### Numbers in tables or text

How to distribute numbers should be based in the audience [?readers', if it's about writing] preference and customs and also by the requirements of the documents. Some readers like?? Is this 'like' like young people today say every 2 sentences, or did you forget to finish your rewording of Mosteller's words? "sop up" is exactly the type of simple phrase that Mosteller would write, so I expect there are his two words. sop up numbers from tables and interpret them, other prefer numbers to be presented in the text. To help readers understand a table, the text should include an explanation of the numbers, at least one or two examples, because tables often have several messages.

### Number in the text

Ease of reading and clarity are goals that should override style sheets, thought [if you read the text aloud, you will realize that you meant to say 'although' instead of 'thought.' Don't let Microsoft guess for you. Check everything yourself. editors can often clearly revise to meet style sheet rules. Some issues are:

- Using words or numerals: Some sources of advise to writers have a rule, numbers smaller than 10, should be written in words and larger than 10, should be written in Arabic numerals. They also recommend to spell insolates ?? spelling two-digit numbers as well. Notice how diplomatic and non-judgemental Mosteller is. I get the impression that he did not see this as a hard and fast rule, and that that is why he says "Some sources have a rule".
- Exhausting and checking: The simple use of calculation such as "22+62=82" will not complicate the passage or the numerical ?? something missing. My repeated message: have someone else read through what you wrote. Imagine this were a cover letter with a job application. A prospective employer could conclude that if you don't check the small details, you might not check the big ones either. for the reader. AND, BY THE WAY, when I was in elementary school, 22+62 did not equal 82. I would be worried about the reliability of buildings you guys supervise! Q: how many

engineers does it take to check a simple addition? A: just one, if that engineer is really on the job. [Adapted from my favourite psychiatrist joke: Q: how many psychiatrists does it take to change a lightbulb? A: one, but the bulb must really want to turn!]

- Large numbers and precision: Although scientific journals encourage precise
  writing, large and uneven numbers can lose readers in details when what may be
  needed primarily is a grasp of the magnitude. Rounding tends to emphasize the order
  of magnitude.
- Number close Together: Why spell 'together' with an uppercase T? And do you mean Numbers? Putting unrelated numbers side by side confuses the reader, at least temporarily.
- Parallelism and similarity: Also, when numbers come from the same series, they should be written in the same manner. It is important that numbers that are to be compared are presented in the same way-words or numerals.

Numbers in tables

Tables can have two main purposes, to record and preserve the numbers for later reference, or to communicate a message for immediate comprehension and use. Tables of physical constants, normal laboratory values, or population censures should preserve the numbers for the benefit of future user. In these cases, we should keep as many digits as the data afford or the user may wish. But, to preserve numbers in an article or report is not always necessary.

When the purpose is to communicate a message, the rule should be to use as few digits as will deliver the message, because the fewer the digits. The more compressible the numbers [Again, read through these last 10 words, and see if you can't smooth them out. Accurate writing suggests a clear and organized mind, and an organized person who can be trusted.]

One recommendation when numbers are going to be compared, they should be lined up vertically I agree 150%. instead of horizontally for better understanding. I would have put a colon between them rather than a comma. One recommendation when numbers are going to be compared: they should be lined up vertically instead of horizontally for better understanding. {Some readers may object that there is no verb, and might insist that there be one. If so, you could say,, "Some teachers recommend that when ..., they should...."

**Symbols:** The reader should not have to guess any symbols. The writer should be clear enough to mention each symbol as <u>[so that?]</u> they cause little trouble in understanding. Therefore, the definitions of each symbol are to be mentioned.

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BOTTOM LINE: You did extract some of the key points of the article, and kept them nice and simple. BUT it looks like you were in a hurry in writing them up, and the simple errors could cost you. Remember, first impressions matter: good ones help you get in the door.

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