GUIDELINES FOR GIVING A GOOD PRESENTATION
AT THE WINTER SIMULATION CONFERENCE*

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1   THESE GUIDELINES <u>WORK</u>. FOLLOWING THEM GUARANTEES YOUR SUCCESS.

If you're a first-time WSC participant, it is especially important that you read these guidelines carefully. If you're a veteran of previous WSCs, take a few minutes to read these guidelines anyway; you may pick up a helpful hint or two.

2   YOU OWE YOURSELF AND YOUR AUDIENCE A GOOD PRESENTATION.

Inclusion in a WSC program requires paying a price. The work you've done and the knowledge you possess reflect huge time investments on your part. Writing a paper, as you so very well know by now, reflects a further time investment. Those of us who are past and present WSC participants appreciate dearly the efforts you have made, and we are grateful for your contribution to the WSC. However, our expectation levels are high; we want to see you cap your efforts with a good presentation.

The time required to put together a good presentation is small in comparison to what you've already done. The difficult part is over; what remains is easy. If you don't properly prepare your presentation, you're shortchanging yourself, as well as your audience.

3   PLACE YOURSELF IN YOUR AUDIENCE'S POSITION.

Your audience is most interested in the ideas you present which can be applied to their work. Try to ask yourself what kind of a talk you would expect, based on the title of your session and the title of your paper, if you were in the audience. For example, suppose you were giving a talk entitled "Optimizing Batch Sizes in a Mixed-Product Sawmill" in a session entitled "Application of Simulation to Scheduling Problems." In order to establish a frame of reference for your audience, you would have to explain some of the peculiarities of sawing logs. However, if you took ten minutes to explain all the difficulties of slicing logs lengthwise and five minutes to explain all the difficulties of cutting logs to length, you would bore your audience to tears.

With such an unusual topic, you could reasonably expect that no one in your audience would be concerned with an identical problem. On the other hand, your audience might contain persons concerned with simulating the scheduling of painting batches of similarly colored automobiles, or refining batches of petroleum-based products. These scheduling problems might have something in common with sawmill scheduling. The keys to success in giving a good presentation in such a session are (1) establishing a frame of reference for the audience, and (2) treating the subject broadly enough to encompass the range of interests of attendees that could be expected at such a session.

4   A PRESENTATION MUST <u>SUMMARIZE.</u>

You may have as little as 20-25 minutes to give your presentation (in a multiple-paper session). It probably took you days or weeks to write the paper upon which your presentation is based. Furthermore, the work upon which your paper

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is based may have taken weeks, months, or even years. Because your work took so much of your time, it is entirely understandable if you are ego-involved with your work. There's nothing wrong with being proud of your work; in fact, if you're not proud of your work, something is wrong. However, don't let your pride lead you into thinking that your audience must absorb each and every detail of your work. If you try to present too many details in a short period of time, your audience will quickly tire. Try to stress concepts, methods, approaches, and conclusions, and use details to illustrate or underscore these ideas. Try to approach your presentation as a marketing effort: a good summary should convince your audience of the merit of your ideas and entice them to further explore the details presented in your paper.

5 IF YOUR PRESENTATION IS WELL-STRUCTURED, A REPORTER WITH NO TECHNICAL KNOWL-EDGE OF YOUR SUBJECT COULD ACCURATELY REPORT WHAT YOU SAY.

One good way to measure the structure of your presentation is to ask yourself how a technically unknowledgeable reporter would report what you say. What headline would the reporter choose? If he wrote a one-paragraph summary, what would he say? If he wrote several paragraphs, would he say the most important things? If your presentation is well-structured, he would.

A well-structured presentation should be like a Mozart concerto, providing structure which is evident and pleasing to the average listener, but simultaneously containing nuances which can be appreciated by the expert.

6 ALLOCATE TIME SPENT ON EACH TOPIC IN DIRECT PROPORTION TO ITS IMPORTANCE.

Make a list of the major ideas you plan to present, and assign a weight from 1 to 10 to each idea. Add up the total weights, and calculate the percentage of the total to be devoted to each idea. Multiply your total presentation time by each percentage to get the amount of time to be spent on each idea. In the sawmill example of Section 3, above, you might conclude that you should spend 20 percent of your time describing the technical details of sawing logs. If you are giving a 20-minute presentation, this means you should spend at most 4 minutes presenting this information.

7 QUALITATIVE INSIGHTS ARE MORE IMPORTANT THAN QUANTITATIVE RESULTS.

Suppose you are presenting a paper which explores two different strategies for reduction of variance in simulation outputs. Consider the following hypothetical presentation of results:

> In situations of type X, we found that strategy A was, on the average, twice as effective as strategy B; however, in situations of type Y, strategy A was 3.5 times as effective as strategy B. Over all the situations we studied, we found that strategy A was never less than 1.5 times as effective as strategy B. Therefore, we recommend the use of strategy A.

Backed up by some illustrative details, the above presentation is one which an audience would be far likelier to remember than an exhaustive presentation of tables of data.

8 YOUR AUDIENCE'S INTEREST LEVEL WILL BE HIGHEST AT THE BEGINNING AND THE END OF YOUR PRESENTATION.

THEREFORE, A GOOD INTRODUCTION AND A GOOD SUMMARY OF CONCLUSIONS ARE OF PARAMOUNT IMPORTANCE.

There's a time-honored formula for giving a good talk:

> Tell 'em what you're going to tell 'em.

> Tell 'em.

> Tell 'em what you told 'em.

Your audience's attention will be high at the beginning of your talk; they will want to size you up. No matter how good your presentation is, your audience's attention will diminish somewhat during the body of your talk. However, when you utter the magic words "in conclusion," their attention will rise again. Use this knowledge to make your big points at the beginning and end of your talk, and keep things moving in the middle.

9 USE TRANSPARENCIES TO VISUALLY REINFORCE YOUR SPOKEN WORDS.

At any given point in time, your audience will have two senses with which to absorb your presentation: sight and sound. Touch, taste, and smell won't come into play. (At least, we certainly hope not.) Don't overemphasize the importance of the spoken word; give equal importance to visual aids. One good criterion for measuring the quality of your transparencies is to go through them in sequence and ask whether your major themes are readily apparent with *no* spoken words. Similarly, a good criterion for measuring the quality of your spoken words is to try your talk with *no* transparencies. These are harsh tests, because neither the spoken word nor your transparencies are adequate alone. If your spoken words and transparencies are both strong individually, then all that remains is to be sure they are properly coordinated, and this is very easy to do.

10 HAVE A GOOD REASON FOR SHOWING EACH AND EVERY TRANSPARENCY YOU USE.

For each transparency you use, ask yourself "Why am I showing this transparency?" Having done so, ask yourself whether the transparency achieves your objective in the best possible manner. For example, if your reason for showing a table of results is to illustrate several key values, you may find that you have to point out these values, in order to distinguish them from values of little or no interest in the table. If so, you would be much better off if you designed a transparency which shows only the important values and reinforces the spoken words you would use to describe the significance of the results, in the spirit of Section 7.

11 USE <u>ACTIVE</u> TITLES ON YOUR TRANSPARENCIES.

Consider the following two titles:

> ON THE AVERAGE, STRATEGY A WAS TWICE AS EFFECTIVE AS STRATEGY B.

versus

> RESULTS

The former title is superior to the latter for four reasons:

1. The former title directly states the reason for showing the transparency. (See Section 10.)

2. The former title provides visual reinforcement for the spoken word. (See Section 9.)

3. The former title presents a qualitative conclusion, while the latter merely serves as a label for data. (See Section 7.)

4. For all of the above reasons, the former title better satisfies the "reporter" criterion of Section 5 than does the latter.

12 SPACE YOUR TRANSPARENCIES EVENLY OVER TIME.

For a typical WSC presentation, the average time per transparency should be 1–2 minutes. If you flip transparencies too frequently, there's not enough time for ideas to "sink in." This can be extremely frustrating for your audience. On the other hand, if you talk about a single transparency for more than several minutes, you strain the attention span of the audience. Practice your presentation. If you find that you spend more than several minutes on a single transparency, consider making several more detailed transparencies.

13 TRANSPARENCIES MUST BE READABLE. DON'T FLOUT THE LAWS OF OPTICS.

If you are using $8\frac{1}{2}$-by-11-inch transparencies, letters less than $\frac{1}{4}$ inch high will be difficult to read. Unenlarged computer output is *impossible* to read. There's no justifiable reason for trying to show unenlarged computer output. If enlarging the output would make it too big to fit on a single transparency, you're trying to put too much information onto the transparency. Summarize! (See Section 4.) Present qualitative conclusions! (See Section 7.)

14 TRANSPARENCIES MUST BE COMPREHENSIBLE. SAY ONLY WHAT'S IMPORTANT.

A transparency can be optically readable, but still be incomprehensible. Complicated mathematical formulae can be too difficult to be absorbed in the 1–2 minute interval in which a transparency is shown. It is much better to say:

> A closed-form solution for problems of type X, first determined by Jones in 1970, can be implemented as a simple subroutine in most languages, allowing us to easily compute the needed values.

than to display complicated formulae and say

> Here we see the well-known closed-form solution due to Jones.

15 RELATE YOUR WORK TO THE WORK OF OTHERS.

The human mind organizes facts by noting similarities and differences. The insights you communicate to your audience will be maximized if you can emphasize similarities with, and differences from, ideas with which they are already familiar.

If you are participating in a multiple-paper session, you can find the other authors' papers in advance of the session in the *Proceedings*. At a bare minimum, read the other papers, and try to include some remarks about how the other authors' work relates to your own. If at all possible, attend the speakers' breakfast on the morning of your presentation, to meet your fellow speakers. These actions will greatly improve the quality of your session.

If you are the only speaker in a session, you have an even greater responsibility to relate your work and opinions to those of others. In tutorial sessions, for example, your audience may have an inadequate knowledge base to which it can relate your presentation. If you feel this is possible, take time to build a frame of reference for them. Give them references they can consult if they wish to learn more. Finally, bear in mind that if there are no other speakers to reinforce or challenge what you say, you have the solitary responsibility to assure the balance of your presentation.

16 PRACTICE YOUR PRESENTATION, BUT DON'T READ IT OR MEMORIZE IT.

Unless you practice your talk, you have no way of knowing that it will be of proper length and that your transparencies will be reasonably evenly spaced over time. Practice is essential. However, if you practice too much, or read or memorize your presentation, all spontaneity is lost, and your presentation will be boring. A presentation is not a speech or an oration, but rather, a talk with your audience. Practice your presentation to the point at which you can give it without notes. (Well-designed transparencies should obviate the need for notes.)

17 BEING NERVOUS IS NORMAL. HARNESS YOUR NERVOUS ENERGY.

Even the most veteran speakers worry a little bit about giving a presentation. Therefore, if you're new to this sort of thing, it's perfectly normal to be worried. There are two kinds of worry, however: productive and counterproductive. The following are examples of counterproductive worry:

1. My talk may run too long. (Solution: practice!)

2. I may forget to say something important. (Solution: stick to the game plan you've laid out in your collection of transparencies.)

3. The audience may laugh at me. (Solution: if this were a possibility, you wouldn't be on the program. A well-presented talk on a simple subject is infinitely preferable to a poorly presented talk on a sophisticated subject.)

The following are examples of productive worry:

1. I've got to remember to evenly space my transparencies, as I practiced.

2. I can't let myself get bogged down in the details of my results transparencies, at the expense of communicating ideas.

Counterproductive worry makes a bad performance more probable. Productive worry gets the adrenaline flowing and assures a good performance.

18 GIVE AN EXCUSE-FREE PRESENTATION.

A single excuse can be the kiss of death for an otherwise good presentation. For example, if you say "I know that you probably can't read all the data on this transparency, but ...," you're telling your audience that preparing a readable transparency wasn't important to you. Your audience will be "turned off" by excuses, and rightfully so. Take the time to prepare an excuse-free presentation.

19 WE HAVE PRESENTED WORKABLE GUIDELINES FOR MAKING A GOOD PRESENTATION. FOLLOW THEM, AND YOU WILL SUCCEED.

There's no magic to giving a good presentation. A first-time speaker can give a good presentation by simply paying attention to the guidelines given above.

20 THESE GUIDELINES ARE THEMSELVES A MINIATURE MODEL OF HOW TO STRUCTURE A PRESENTATION.

Each section begins with a clearly stated, *active* title. The paragraphs are of approximately equal length. We've tried to anticipate the concerns of the reader. We've stressed broad concepts. The introduction and conclusion are consistent and present a clearly stated theme: "You can do it!" Best wishes for a successful presentation.