Effective Research Presentations

A Guide for Graduate Students

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Introduction

The tried and true expression, "The work isn't finished until the paperwork is done," is often used in discussions about research. Because research has little value until it is communicated to others, we spend a good deal of time and genuine toil in "writing up" our research. The reader should look elsewhere for advice on preparing written reports, dissertations, and/or journal articles.

However, it is important to note that effective face-to-face presentations of your research usually contribute significantly to your ability to write publishable articles. This brief discussion will focus on face-to-face presentations of research in formal settings.

Your colleagues who assemble for a face-to-face presentation usually will offer tremendous insight into what will be of interest to the larger audiences you might reach through the written media.

The rapidly changing nature and availability of telecommunications technologies will continue to alter the ways in which we share information with one another. Computers and the Internet currently provide opportunities to significantly enhance both oral and poster presentations of research. On the other hand, there are still many useful applications for the flip chart, overhead and 35mm projectors, audio recordings, videotape, and the chalkboard. No medium is obsolete; no medium is absolute. When striving for an exchange of ideas and genuine understanding, there is still no substitute for one-to-one, face-to-face human communication.

To effectively communicate, we need to consider the audience's characteristics, the nature of the space surrounding us during the communication, what tools we have at our disposal, and how we should dress for the occasion. What follows is neither definitive nor complete. However, it is hoped that the material presented here will serve as an *introduction* to a genuinely rewarding experience in sharing your research results with others.

Types of Presentations

Different types of presentations offer different advantages and require different methods of preparation.

Oral delivery is the most common form of presenting research at formal meetings. The setting can range from a small conference room to a large auditorium. It is important to make a clear distinction between the documents you prepared for the proceedings document and the oral presentation your audience will be exposed to. **Never** plan to merely read your paper to the audience. The research discussed in the written document should be identical to the research reported in your oral presentation; all pertinent information needs to be in both. However, your oral presentation should take advantage of an opportunity to discuss your research with your audience and to customize that discussion to interests expressed during the exchange.

Poster presentations offer an even greater opportunity to make your research relevant to the unique interests of your audience because you can be engaged in one-to-one conversations with those who stop to view your exhibit. Simply stated, a poster presentation is a tabletop display of your research enhanced by your being available to further expand the information in direct response to questions posed by your audience. In some cases, poster presentations are left in place while the authors are engaged in other activities. For that reason, it is important to make every effort to design the presentation so that it can "stand alone." If at all possible, handouts that offer more detailed information about your project should be available for those who visit the display.

Early Planning

Using the calendar to best advantage. Rarely, if ever, will you be asked to present your research on short notice. Usually, a "call for papers" is published well in advance of the seminar, symposium, or other venue. Authors are given the opportunity to submit an abstract describing the research prior to any confirmation that a proposal has been accepted for presentation. Following notification that a proposal has been accepted for presentation, authors are often asked to submit a paper for publication in the conference proceedings. It is best to submit your proposal <u>well in advance</u> of the announced deadline. Then, it's a good idea to assume your proposal will be accepted and to begin working *immediately* on your written presentation. This will not be wasted effort. In the event that your proposal is not accepted, the written version can still be used as the proceedings documentation for some other venue and/or be published elsewhere. In other words, if your presentation is not accepted for any reason, rewrite your proposal and submit it for consideration at another venue.

Once you have submitted your proposal, mark the anticipated presentation date on your calendar and, working backwards from that date, also note due dates for the abstract, proceedings document, notification of audio/visual needs, and any other communication required prior to the scheduled presentation. Schedule a time to present a "trial run" of your presentation to some trusted colleagues. Insist that they give you constructive criticism.

Checklist—Also, a checklist will help insure that you are well prepared for your presentation. Some recommended items for the list follow. Most require consultation with colleagues at the host site well in advance of the presentation.

- ☑ **Printed copies of handouts.** If you plan to use handouts, make sure you have enough copies for those in attendance. Usually, individuals hosting the event will be able to predict how many copies you'll need.

- ☑ **Audio/visual requirements.** Will you be projecting video, 35 mm slides, or overhead transparencies? Do you have a need for audio (cassette tape, compact disk) playback equipment? Do you need access to a white board or chalkboard? Will you use a flip chart? Once you have determined the audio/visual support you need, communicate with conference coordinators at the host site to verify what items they will supply and what items or materials you are required to bring with you.

- ☑ **Computers and laptops.** Are you required to bring your own computer or laptop if you plan to use one for your presentation? If computers will be available at the site, what platform(s) and software package(s) will be supported? What type of connector will be needed to plug your computer into the LCD panel or LCD projector in the room? Should you bring a connector or will one be available on site?

- ☑ **Internet access.** Do you need Internet access for your presentation? If so, alert your host immediately. This is especially important if you are going to take your own computer. The local gateway to the Internet may require you to load special software on your computer. If access is through a regular phone line, you'll need a modem in addition to any unique software.

- ☑ **Practice hours.** Find out if you will be able to set up your presentation and run through a practice session prior to your scheduled presentation. If at all possible, practice with the audio-visual equipment you will actually use during the presentation and test your Internet connection (if needed).

☑ **Back-up plan.** There's always a chance that equipment will fail. Make sure you have alternative ways to present your material. If you are using computerized presentation software, also print your images on transparencies for overhead projection just in case the computer begins giving you trouble. If you plan to use the Internet/Web, have a back-up plan in case the connection fails, or modem speed or Internet traffic slows access.

Audience

In many cases, research presentations are given to colleagues in one's own field. However, just as often, symposia provide opportunities for individuals from varied disciplines to share information. The nature of questions from your audience will be influenced greatly by how familiar those in attendance are with the subject you are presenting. For these reasons, it is important that you consider who is likely to attend the event. This information is usually outlined in the "call for papers" or other introductory material provided by those organizing the symposium, conference, or other venue. If not, a call to your host will usually yield an answer to the question, "To whom will I be speaking?" Once you arrive at the conference site, start talking with those who are likely to attend your session to gain even more insight into where their interests lie.

Your presentation will be filtered through your audience's perception of reality - a product of their social, cultural, and educational experiences.

Rarely will a presentation prepared for one audience serve another. How people perceive your message will be affected by *who they are* as much as by what they know. Your presentation will be filtered through their perception of reality which is a product of their social, cultural, and educational experiences. It will never be possible to construct a profile of each member of your audience, but it is possible to gain some insight into their collective characteristics. Most relevant to this discussion is whether those coming to your presentation are already familiar with the subject matter. If you are not armed with much information about your audience, it is best to assume their knowledge of your subject is limited. This will help force you into using one of the most effective communication tools: simplicity.

Message Development

Appropriate titles and abstracts. Whether your proposal is accepted for presentation will depend upon how *descriptive* your title and abstract are. Words can mean different things to different people. Avoid the temptation to be clever. Instead, give your proposed presentation a title that clearly and precisely defines the nature of your research. Often, a subtitle will help the reader understand your topic even more precisely.

The abstract should elicit a desire to learn more about your project.

As a rule, your abstract should identify the problem or opportunity addressed by your research, the nature of the study, and the nature of the finding(s) to be discussed in your proposed presentation. There is no room in the abstract for presentation of the actual findings; to the reader, the abstract must be a *tease* that results in a desire for more information.

Your abstract must be a brief but complete explanation of what you intend to present. Notice the difference in these two approaches to abstracting survey research:

① *Most of the people we invited to participate in the survey returned the questionnaire by the announced deadline of March 1st. The response rate was improved as a result of a second mailing and telephone follow-up.*

② *The results are based on a 73.8 percent response rate.*

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[1] *Dissertation abstracts international.* (1969 to date). Ann Arbor, MI: University Microfilms International. (Prior to 1969, the title was *Dissertation abstracts*.)

The second example uses far fewer words and is more likely to grab the reader's attention. The first attempt gets hung up on the methodology; the second zeros in on *results.* An abstract is a well-constructed summary of the proposed paper.

Perhaps the best illustration of well-written research abstracts of particular interest to you and others engaged in your field of study is *Dissertation Abstracts International.*[1]

Research presentations, written and oral, explore a problem or opportunity within some theoretical framework. A review of the literature is usually followed by a description of the research under discussion, including the methodology employed, analysis of data, conclusions and recommendations. When research is still in progress, the presentation may focus on only one area, such as the literature review or design of the research instrument.

Don't read directly to your audience or try to memorize a speech.

As indicated earlier, your oral presentation should be approached differently than the material you write for the conference or symposium proceedings document. You should not read to your audience; it's usually not a good idea to try memorization either. A memorized speech can quickly turn to stage fright if you lose your place or are interrupted during your delivery.

The most effective approach is to outline your speech and to speak extemporaneously **with** your audience. Some speakers put their outline on standard letter-sized paper; others prefer using note cards with one or two ideas on each card. Some even depend on their transparencies or computer graphics to guide them through the presentation. In all cases, you must carefully plan your presentation and know your material well enough to be comfortable with extemporaneous delivery.

Next, schedule <u>several</u> practice sessions. First, practice before a mirror in the privacy of your home. The next step should introduce an audience, preferably colleagues who will offer constructive suggestions and encourage you to improve the presentation. If at all possible, videotape one of your trial runs. You will be your own best critic; videotape should give you a good look at yourself.

Careful preparation is the key to a natural-sounding presentation.

When orally presenting your research, begin with a clear statement of purpose. Then, <u>briefly</u> review the relevant literature and describe the methodology you employed in your project. The bulk of your presentation should focus on the results of your research and your interpretation of those results. Following a brief summary, conclude with your recommendations and an opportunity for the audience to ask questions.

Using simplicity to advantage—It is possible to explain complex ideas through simple language without appearing to be condescending to your audience. Likewise, the presentation will not be perceived as too simplistic by the most informed or sophisticated in attendance. To engage simplicity as an aid to communication:

- Avoid the use of jargon. If a unique term is necessary, briefly define it for your audience.

- Use short sentences. Brevity and simplicity help assure clarity of your communication.

- Explain the purpose of your research in three sentences or less.

- Use graphs, charts, or models to visually communicate complex information.

Visual and Graphic Support

Different methods of visual support provide different advantages. Decide what you want to do with your presentation ahead of time to help you decide.

The poster presentation is first and foremost a <u>visual</u> presentation of your research. In most instances, the poster should be designed to stand alone; it should communicate to an observer if you aren't present to explain what went on with your project. Ideally, however, you *will* be standing near your exhibit to engage visitors in conversation. To further enhance your communication with the audience, plan to have the same detail you would offer in an oral presentation available in handouts for those who express interest.

The content of the poster presentation should mirror your written research reports, but with much greater brevity. To communicate effectively with a casual observer, your poster should:

- Show clearly the topic of your research,

- Make possible the understanding of the theoretical framework within which you conducted your investigation,

- Explain the research design, and

- Display your findings, analysis, and conclusions in a visually pleasing manner.

More importantly, your poster should be designed to capture the casual observer's attention and move the individual toward a discussion with you which, in turn, results in a genuine sharing of information. This is no easy task. Much will depend upon where the posters are displayed, for how long, and what else is happening when your material is on display. None of these variables is usually within the control of the presenters. However, the <u>design</u> of the poster *is* controlled by the author of the research. Many of the recommendations included in the following discussion of visual support for oral presentations are equally relevant to the poster. Additionally:

- Display the title of your research project in bold type large enough to be read from 10 or 12 feet away.

- Use graphics instead of text whenever possible.

- Arrange photographs, charts, and other graphic information with plenty of space surrounding each item. Avoid clutter; let each item stand alone, as it were.

- When appropriate and relevant to your presentation, use three-dimensional models or real objects as part of your display.

- Keep all type and visuals **large**.

- Strive for a variety of shapes and textures. A shape which deviates from the horizontal and vertical lines of the poster can draw attention; texture adds interest.

- If at all possible, bring auxiliary lighting to help illuminate your poster.

- Make note of what captures your attention when you "look twice" at a billboard, store display, newspaper or magazine ad, and/or an exhibit at the county fair. Learn from these examples.

- Don't lose sight of your audience. The design of your poster should be partially dictated by their age, interests, educational level, and perceived familiarity with your subject.

- Make every effort to keep participants from gathering in front of your exhibit

for social interchange. The best way to do this is to engage all who stop at your space in conversation about your presentation.

Visual support for oral presentations takes many forms. Most commonly used are overhead transparencies and computer-generated slides projected onto a screen in the front of the room. These technologies are popular because they are easily transported and can usually be projected without significantly darkening the room. The older technology, the transparency, is sometimes preferred because the presenter can also write or mark on it during the presentation, either for emphasis or in direct response to points brought up by members of the audience.

Nothing will detract more from your presentation than a projected image that can't be seen from the back of the room. Unfortunately, presentation software has not yet been designed which will force the user to produce highly visible, therefore, readable images. It is still possible to produce illegible images using state-of-the-art technology. The following guidelines apply to both transparencies and computer-generated images prepared for projection.

- **Use only one typeface.** Experiment with available styles and find one that you can read from a distance. Chances are, if you can read it, others will also be able to read it. For emphasis, use italics, bold face, or color (if available), but resist the temptation to use a different typeface.

- **Use both capital and lower-case letters.** SOMETIMES WE'RE TEMPTED TO PUT SOMETHING IN ALL CAPITAL LETTERS FOR EMPHASIS, **but** readability suffers. The use of **boldface** for emphasis will usually be more effective.

- **Use short words** and short sentences. Ideally a sentence will be on a single line and a single slide will contain no more than three lines. If a word can substitute for a sentence, so much the better.

- **Express only one idea per visual.** Limit this to less than a dozen words.

- **Use no more than two pictures or graphs per visual.**

Design your poster with the intention that it encourages a discussion with you, the author.

- **Use bullets and numbers** to emphasize sequences and/or other relationships among ideas, concepts, and processes.

- **Use graphs and charts** to visualize complex information and to summarize results. Keep these visuals simple as well. Illustrate only the most important aspect of your message. For example, instead of showing all responses to a questionnaire in a pie graph, group responses so the audiences can see a picture of the most relevant trends.

- **Big is better**. Use 24-point type or larger for both overhead transparencies and computer-generated graphics. (This is 12-point type.)

- **Concentrate on contrast.** Contrast between the color of type and the background color is critical to readability.

Try to keep the number of graphics on a page to just one or two. Much more and the page or slide will appear too busy and only serves to distract your audience

This is 24 point type.
This is the same type in boldface.
36-point bold is better.

Black type on a white background is easier to read than black on gray.

Black type on a white background is easier to read than black on gray.

Avoiding conflict with your own visuals. Careful preparation of each image is the first step in effective use of visuals to support your presentation. Unfortunately, many presenters create distractions that compete with the projected images for the audience's attention. This section offers suggestions for avoiding common pitfalls and getting the most from the effort you've put into your visuals.

- **Stand aside.** Stand to the right or the left of the screen; make sure you are not standing between the image and your audience. If you are using transparencies, it is wise to have a colleague seated near the projector to change the image at your signal. That way, you can focus on your presentation and your audience. If you have no alternative to handling the transparencies yourself, step up to the projector when changing images. Then, step away to continue your discourse.

- **Pacing is important.** Don't rush through a series of visuals so fast that the audience becomes confused.

- **Allow the visual to take center stage; then give it the hook.** The audience should be able to look at your visual for about five (no longer than 10) seconds before you begin talking about its content. It's not easy to read and listen at the same time. Once the visual has served its purpose, move to the next image or turn off the projection lamp until the next image is needed.

- **Watch the audience, not the visual.** Never lose sight of the fact that the two most important things in the room are you and your audience. If you maintain eye-to-eye contact with your audience, you'll be able to more effectively direct their attention to the visual when appropriate and then back to you.

- **Distribute handouts *after* your presentation is finished.** That way, your audience won't be leafing through them instead of paying attention to what's happening in the front of the room. Count those present and ask a colleague to have additional copies made if needed. If your handouts should reduce the need for note taking, begin your presentation with a statement such as: "I'll be giving you some handouts later, so you probably the available space in terms of seating capacity, configuration, lighting, and acoustics. If you have been told that 40 participants have indicated interest in your presentation and only 25 can be seated in the assigned space, something has to change. If the room is arranged with tables and chairs for participants to face one another instead of facing the presenter, something has to change.

Preparing the Arena

Seating capacity. There is no substitute for practice and preparation. As soon as possible, visit the room where your presentation is to take place and assess the available space in terms of seating capacity, configuration, lighting, and acoustics. If you have been told that 40 participants have indicated interest in your presentation and only 25 can be seated in the assigned space, something has to change. If the room is arranged with tables and chairs for participants to face one another instead of facing the presenter, something has to change.

You may learn that the room will be used for a different function prior to your presentation. Still, it is best to make an inquiry and to gain assurance that the room will be arranged suitably for your use. Then revisit the room frequently to check on progress.

Handouts can often be a source of distraction during a presentation

Audio/visual considerations. Project your visuals and view them from the back of the room. Make sure you can adjust the lighting if a change in lighting is needed to improve the readability of your visuals. Ask a colleague to stand in the back of the room and listen as you speak in a normal tone and volume. Switch places and listen as your colleague speaks. Will it be necessary to amplify your voice in this room? If so, make sure equipment will be available to accommodate your needs.

How you interact with your visuals vis-à-vis your audience has been discussed in some detail. This section will focus on you, the presenter, as an audio/visual component of the presentation. How you are dressed, how you move (or stand still), your facial expressions, and how you use your voice will all influence the effectiveness of the presentation.

Platform Behavior

Appropriate attire. For this occasion, you will want to dress both comfortably and professionally. Whether you wear a business suit or more casual attire will depend largely upon the venue and who is in the audience. It's better to dress "up," than to dress "down." If the audience arrives in more casual attire, you will still be dressed appropriately. Also, through your mannerisms, you will be able to create a more relaxed image.

When in doubt, dress "up"

It is important that your clothing is comfortable, that it fits you well. Sometimes, presenters buy something new to wear for the occasion only to learn that a jacket is too tight in the shoulders, or that the left leg of the new slacks keeps catching on the heel of the new shoe. There are limitless situations in which having new clothes (or clothes you haven't worn for a while) create a distraction for both the presenter and the audience. The solution is to try on what you plan to wear well in advance of the scheduled presentation. Its also wise to practice your speech in the clothes you plan to wear; a dress rehearsal or two will be well worth the effort.

A dress hearsal of your presentation is always helpful, especially if the outfit you'll be wearing is new.

Movement and gestures. The physical movements and the gestures you make can make or break your presentation. There's a major difference between pacing and meaningful moving, between an emphatic gesture and nervous rubbing of your arms, or wringing of your hands. When you practice before a mirror or videotape, work on these important nonverbal signals. Movements and gestures must be practiced just as vigorously as the verbal and visual components of your presentation. All must appear natural, not artificial.

Your body movements can help emphasize certain points in the presentation. Be aware of your gestures..

A step closer to your audience helps reinforce the idea you're communicating; a step back, combined with a brief pause, suggests that the audience should ponder what you just said. A clenched fist, a shrug of the shoulders, raised eyebrows—all can contribute significantly to an effective presentation. Likewise, facial expressions can be used to make your audience more comfortable, to emphasize an idea, or to suggest an attitude.

Vocal quality. How you use your voice is just as important as what you have to say. Vocal quality refers to volume, variety, and pitch. Always strive to speak in a normal pattern. Think about talking with your audience instead of delivering a speech to them. With this mental picture, it will be easier to maintain normal inflection. Also, as noted earlier, it is important to know if your voice should be amplified in this specific setting. If you find you must shout to be heard in the back of the room, chances are you'll have little control over vocal quality.

With appropriate acoustics, it will be possible for you to raise and lower the volume of your speech to add emphasis and vocal variety to your presentation. To add even greater emphasis, you may want to make some statements more slowly than the average pace you've already set. Speaking more rapidly may signal your audience that you're running out of time or have too much material. So, be careful to make your rate of speech work for you.

The audience is a good and immediate source of feedback on your presentation. Use it to your advantage.

Reading and adjusting to your audience's needs. One reason it is recommended that your eyes be focused on your audience is that the facial expressions and body language coming from the participants is valuable feedback. By watching your audience, you will gain some insight into their level of comprehension. At the same time, by moving your eyes from one participant to another, you are helping to direct their attention to your message. What you hope to see is a series of pleasant facial expressions, participants leaning forward in their seats as you introduce a new visual, nodding heads in agreement, and even an occasional smile.

Disagreement or confusion can be communicated through a frown, raised eyebrows, an extended comment whispered to a colleague, shaking the head, or starting to raise a hand.. If a member of the audience suggests through body language that something is unclear, look directly at that person and offer assurance that this point will become more apparent as the presentation unfolds. Offer a brief smile or some other gesture to reinforce that assurance.

Don't be scared of questions, but it's best to save them for after you're finished.

Responding to questions. The primary reason for your presentation is to share information. Often, you have little idea how well you've achieved that goal until questions are asked. That is why it's important to allow time for questions from the audience. Usually, the presenter decides whether questions are asked at any time during the presentation or held until after the formal speech is concluded. I recommend that you ask the audience to hold questions until your presentation is finished. This serves two purposes: first, it allows you to go through your material as you have rehearsed it and within the time you've planned for it; secondly, it helps assure that a question is not asked prematurely—just before you would have addressed the topic and eliminated the need for the question.

Fielding the abusive question. It is hoped that each of us is greeted only with professional behavior. However, there is always the outside chance that someone will ask an abusive question. Sometimes, the individual wishes to take issue with your conclusions or merely wishes to boost his or her own ego by appearing more knowledgeable about the topic. Such questions create considerable discomfort for the presenter.

Maintain control. Don't mirror the attitude of the person asking the abusive question.

Resist the temptation to respond in kind. Sometimes it *is* difficult to maintain your composure. However, it is possible to prepare for the abusive question and, thereby, help assure your own serenity. Practice the following responses until you are confident you can deliver them with conviction:

> "That's an interesting perspective I hadn't considered. I need to take another look at that."

> "I hate to admit that I'm not familiar with that study. Could you visit with me later? I'd like to know more about that."

Follow either of these statements with, "Next question?"

Other forms of feedback. It's rare that all questions are asked. Some people are reluctant to ask questions in public; these individuals may hope to catch you in the hallway later. To help assure that everyone has an equal chance for clarification or to offer you feedback, invite additional questions or comments to be addressed later.

Bringing the Presentation to a Close

Often, several research presentations are given back-to-back, so it's important that you conclude your session in time for the next presenter to prepare the room and for audiences to get to alternate locations. During the question-and-answer session, distribute your handouts. If you were unable to get enough copies for everyone in attendance, offer to send them to anyone who provides you with a name and mailing address. Business cards are often used for this purpose. Ask attendees to pass their business cards or written information to the front of the room while you answer questions. This will help prevent a bottleneck later, when others are trying to gain access to the room.

Give your mailing address, e-mail address, phone and FAX numbers to facilitate further communication. Include this information in your handouts so participants don't need to take additional time copying the specifics.

About five minutes before your session is to end, announce that you can only field one more question. Be firm, accept only one question and answer it with as much brevity as possible. Close with an assurance that you will send the material requested and remind them that they can contact you by mail, phone, fax and/or e-mail

If possible, cheerfully shake hands with attendees as they leave the room. Let them know with your parting nonverbal communication that you're open to continuing discussion about your research and that you have an interest in what they are doing.