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Effective presentations: how can we learn from the experts?

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SUMMARY *Although the health care community expects its members to make effective presentations, presentation strategies are seldom explicitly taught. Those who do attempt to systematically teach or learn these skills soon realize that 'how to' guides for making effective presentations contain useful, but not sufficient, information. To become an effective presenter, it is necessary to understand not only the generic strategies that characterize effective presentations, but also the context-specific presentation strategies of a particular practice community. The framework for making effective presentations proposed in this paper is grounded in the knowledge of how experts acquire and use strategy knowledge, and takes into account not only the 'how to' of making presentations, but the circumstances and belief systems that determine effective presentation strategies in varying contexts. The framework is designed to make presentation strategy knowledge more transparent, and to permit presenters to learn from every presentation they give and attend.*

Introduction

> At the end of a 45-minute presentation, a medical physicist receives resounding applause from an audience that includes nurses, pharmacists, physicians, health records staff, and social workers. His presentation is talked about with excitement during the coffee break. Later, you watch participants enthusiastically fill out written evaluations of the presentation. How did the medical physicist take a seemingly dry and obscure topic and make it the subject of so much interest and discussion?

Although the health care community expects that its members come ready and able to present conference papers, host grand rounds, present cases and provide community education, most health care professionals would be hard-pressed to articulate how this medical physicist made his presentation the topic of conversation. For many, answers to this question might range from 'natural charisma' to 'years of experience'. This response is understandable, since presentation strategies are seldom explicitly taught. It is more likely that these strategies are learned through immersion in a particular practice community, with new practitioners adopting the practices of experienced members. The result is an implicit understanding of what makes an effective presentation—an understanding which is applied with surprising consistency, but which the presenters themselves often find difficult to describe. To make these tacit understandings even more difficult to articulate, presentations also vary across contexts and disciplines: case presentations vary from paper presentations, and the presentation style of a physician will vary from that of a nurse. Consequently, the challenge in characterizing effective presentations lies in identifying both the implicit strategies and the contextual influences which determine the presenter's style.

Even when considered only in terms of the strategies involved, making an effective presentation is a challenging communication task. Presenters must anticipate the audience's prior knowledge, hold attention, present messages in clear and organized ways, determine a pace that will accommodate most listeners, use media to back up the verbal message, and read audience response (Renfrow & Impara, 1989). Given the complexity of the task, it is not surprising that those who wish to acquire expert presentation skills often seek advice from various books and papers describing the 'how to' of effective presentations. These sources (e.g. Timm, 1981; Renfrow & Impara, 1989; Whelan, 1996) provide useful and specific strategies for the use of organization, oral communication and visual resources in presentations.

Although the systematic use of these general presentation techniques is certainly more effective than a trial-and-error approach to enhancing presentations, their usefulness is limited in two important ways. First, the strategy knowledge described in a typical 'how to' source lacks important information about the particular context in which a presentation will be made. Depending on the context, there may be multiple answers to questions such as: What is the usual sequence followed in presenting information? What kinds of evidence are valued by the audience? What kinds of visual representations are used? Is humour always appropriate? Finding the answers to these questions for a given context is essential to a successful presentation in that context. A second limitation is that the 'how to' approach

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focuses on how a single individual can apply a presentation framework and refine that framework in each subsequent presentation (Whelan, 1996). Consequently, the evolution of effective presentation strategies can take a long time. Given the demands of the health professions for strong and contextually appropriate presentation strategies, a general 'how to' framework is not sufficient to explain the level of expertise demonstrated by the medical physicist.

To understand why this medical physicist was so effective in his presentation, and more importantly, to learn from his example, it is necessary to bridge the gap between the highly contextualized presentation strategies of the practice community and the generic strategies that characterize effective presentations across contexts. In our paper, we will construct this bridge by combining the knowledge of how we learn to use strategies with a framework for consciously monitoring presentations. This bridge has the potential, first, to make the strategy knowledge underlying effective presentations more transparent and, second, to permit presenters to learn not only from every presentation they give, but also from every session they attend.

What do we need to know to make effective presentations?

Actions

To use presentation strategies effectively, it is obvious that we must first learn *what* to do. According to the evaluation forms filled in by participants, the medical physicist knew what to do. He used well-produced slides that were clear, easy to read and varied. He was well prepared, and spoke naturally, enthusiastically and without hesitancy. He used examples that helped an audience that did not share his level of expertise understand complex concepts in physics. He applied physics, clearly explaining a new technique and the significance of its contribution to patient care. Although the medical physicist executed a number of effective strategies, knowing the appropriate actions to take was not the only knowledge he demonstrated in his presentation.

Conditions

Effective presenters also know the conditions under which a particular strategy is likely to work, what effect it might have, and how well the strategy has worked for them in the past (Pressley *et al.*, 1987). For instance, the medical physicist knows that using everyday examples is an effective strategy for explaining concepts when the audience is not made up of expert physicists. He is aware that he was not successful when he once tried to explain this procedure to a similar audience without examples, and that the last three times he used these particular examples he was very successful in helping non-physicists understand the process. He also knows that he would never use these examples at a medical physics conference.

This kind of knowledge about when and where to use a strategy is called conditional knowledge. Research on strategy instruction shows that, without conditional knowledge about a particular strategy, people are unlikely to independently choose or apply that strategy, even though they know 'what' to do (O'Sullivan & Pressley, 1984). Conditional knowledge provides the contextual associations that form bridges between knowing a strategy and implementing it in a particular situation. The importance of contextual cues in evoking particular presentation strategies is another reason why presentation checklists or 'how to' descriptions, when used alone, will not provide sufficient knowledge to become an expert presenter.

Beliefs

In addition to knowing how to execute a strategy, and the conditions under which that strategy is likely to be successful, expert presenters also possess *beliefs* about their knowledge, their abilities, and their situation. These beliefs increase the probability that they will search for or apply a particular strategy (Clifford, 1984; Borkowski *et al.*, 1990). The medical physicist believes that educating other people about his work is important and that his enthusiasm for his work is contagious. He believes he is successful in his role as an educator because he uses effective presentation strategies. He also believes that careful planning is essential to an effective presentation. Besides preparing his slides and text, he prepared for this particular event by incorporating suggestions from earlier conference evaluations, and by discussing some of his presentation ideas with colleagues.

The medical physicist was further influenced by his beliefs about the audience. When preparing to present to any multidisciplinary group, he considers it essential to gauge his audience well, and to set the content of his presentation at a level that will be perceived neither as patronizing nor as too technical. He believes that health care professionals value empirical data, but that they also find actual cases to be compelling examples. In describing new techniques and their application in patient care, he feels that it is important not to lose sight of the needs and concerns of a patient undergoing what can be a rather frightening and unpleasant procedure. In addition, he believes that it is important to monitor how the presentation is being received and to adjust accordingly. To become effective presenters, we must develop similar belief systems about our work, ourselves as presenters and our audiences.

Learning from experience

On closer examination, it is evident that the effective presentation of the medical physicist depended not only on his knowledge of what to do, but on complex interactions of this knowledge with associated conditional knowledge and beliefs. How has he learned this comprehensive set of strategy knowledge? The short answer to this question is that he constantly monitors and compares the presentation strategies used and the contexts in which specific strategies seem to work best, in order to learn new strategies or revise old ones. Furthermore, when the opportunity to use new strategy knowledge arises, he applies what he has learned and assesses its impact. As he acquires more strategy knowledge and applies it successfully, his beliefs about making presentations and using different presentation strategies change in ways that motivate him to choose and to use strategies that are most appropriate for a situation (Chi, 1987; Pressley *et al.*, 1987; Borkowski *et al.*, 1990).

This analysis seems to bring us full circle to the argument that presentation strategies are best learned through experience. However, there is one critical difference: this

immersion experience is accompanied by a conscious effort to identify specific strategies being employed (or which might have been employed), the conditions under which a strategy works (or does not work), and the beliefs and assumptions that seem to guide the presenter. This critical awareness of what is happening during a presentation makes the strategy knowledge of the presenter more explicit and accessible. By intentionally seeking to identify the various forms of strategy knowledge embedded in presentations, and actively comparing our knowledge with that of the presenter, it is possible to learn something from every presentation we observe.

The kind of critical observation required to reveal the strategy knowledge implicit in a presentation is similar to the observation practised routinely by health care professionals. Just as salient aspects of a patient's condition or verbal reports are used to make a plan of action, critical observation skills can be used to identify presentation strategy knowledge. To help transfer these skills from the more familiar clinical context to the analysis of a presentation, we have developed a questioning framework (Table 1). This framework is designed to prompt an observer to recognize presentation strategies, to infer the conditions under which those strategies would be useful, and to appreciate underlying beliefs and assumptions that influence the presentation style.

Applying the framework

The questions in Table 1 are intended as an analysis framework to facilitate the exploration of 'how to' strategies normally discussed in respect of presentations, as well as the deeper contextual influences, values, and beliefs that are inherent in every presentation. The questions are organized into five major components: the *context*, the *speaker*, the *audience*, the *presentation* and the *response*. Some questions may appear self-evident and unnecessary, while others will require more reflection or may be impossible to answer in some situations. However, to fully examine the presentation it is necessary to focus on both explicit and implicit aspects of a presentation.

As you work through the questions in Table 1, it will become evident that these questions are only a beginning. The framework will trigger further questions that will enhance the analysis and make it more specific to a particular context. It will also become evident that the questioning framework is too complex to be applied all at once, or to be followed sequentially during a presentation where the content also requires your attention. Instead, we recommend a structured note-taking system (Figure 1) to capture salient aspects of the presentation (including content) that can later be used alongside the framework to cue more in-depth reflection. This approach allows an observer to focus on selected aspects of a presentation or on the entire presentation, depending on the learning goals.

In the case of the medical physicist, whose reputation for excellent presentations preceded him, one of the physicians in the audience decided that her goal was to undertake a comprehensive analysis of his approach. The evening before the presentation, the physician reviewed the questioning framework and the structured note-taking chart. Using the conference booklet and her own background knowledge of the presenter and his topic, she jotted down points she already knew about the *context*. The presentation would be the second of three keynote presentations scheduled over a three-day regional conference on cancer care and treatment. It would take place in a hotel ballroom, which would be set up for a lecture. Under *speaker*, she noted that the medical physicist was a nationally recognized expert in his field with a reputation for effective presentations. Unlike many of the participants, he did not work in the region and was more involved in clinical research than in day-to-day care. Reflecting on the *audience*, she turned to the list of registrants and noted that it was made up of approximately 400 health care professionals involved in the care and treatment of cancer patients: nurses, pharmacists, physicians, technicians, health records staff and social workers. She set aside the questioning framework and slipped the chart inside the conference booklet to take to the session. She would return to the questions again when she had more time to think about the presentation.

The next day, her note taking began before the speaker uttered a word. As she sipped her coffee and tried to get in a comfortable position to take notes, the physician added to her preliminary notes. There was already lively conversation in the room. She noted 'lecture?' under *audience* to remind herself of the misgivings she had about scheduling a highly specialized lecture for this multidisciplinary audience. The brief introduction of the speaker by the conference chair did not really add anything to the information provided in the program, but her note taking resumed in earnest when the presentation began.

To her surprise, the medical physicist began not with technology, but with a case. Under *introduction* she wrote 'case', 'real person', and under response she wrote 'case hooked!' to describe the rapt attention generated by his description of the case. Other notes on the introduction included 'clear purpose' and 'three-point overview' as reminders of how the physicist let the audience know that the presentation would explain the latest innovations in medical physics used in the treatment of this case. Under *speaker* she found herself writing 'relaxed', 'confident', 'enthusiastic', 'empathetic', 'good eye contact' and 'great voice.' In glancing at her notes so far, she realized that many of them were connected with 'how to' strategies. However, her motivation to write down each one was triggered by something less tangible: her own positive response and the responses she noticed around her. Observing the audience, she noticed subtle cues in body language: head nodding, alertness and focused attention. Without having to ask anyone, she knew that this audience already appreciated the fact that the presentation was going to be relevant, patient centred and informative. A quiet air of enthusiasm permeated the room without a word being said. Watching the speaker's body language and listening to the tone of his voice, she knew that he also felt this response and was speaking with a subtly heightened sense of confidence, knowing that the strategies he had selected for this particular context were working well.

Turning her attention to the *body* of his presentation, she found her note taking divided between the content details she wanted to record and her cryptic descriptions of the presentation itself. In the end, her notes included, 'slides showed structure', 'great diagrams', 'how patient experiences technology', 'balances the human interest with statistical proof', 'analogies' and 'organized.' Her notes on

Table 1. Presentation analysis framework.

The context

Who is the speaker?
What is the purpose of the presentation?
Where is the presentation taking place?
Is the presentation part of a larger event?
How does this particular presentation fit the context of this event?
How is the room set up?
Your question(s):

The audience

What is the size of the audience?
Who is in the audience for this particular presentation?
Is there a shared professional culture?
What is the general mood of the audience prior to the presentation?
Your question(s):

The speaker

Who is the speaker? Is he/she well known?
What is the speaker's area of expertise?
Where does the speaker come from?
Is the speaker familiar with the context in which he/she is presenting?
Is the speaker's voice clear and easy to understand?
How does the speaker communicate enthusiasm for the topic?
If used, is humour appropriate or inappropriate?
How does the speaker use body language?
How does the speaker use visual aids?
Is the speaker's presentation style didactic, interactive, or a combination of both?
What can be gauged about the speaker's professional beliefs and assumptions?
In what ways does the speaker gain (or lose) the respect of the audience?
Your question(s):

The presentation

The title

Is the title of the presentation appropriate?
Does it arouse interest/curiosity?
Is it appropriate for the conference theme?
Is it appropriate for this particular audience?

The introduction

What strategy does the speaker use to begin the presentation?
Is it effective?
Is the purpose of the presentation clear?
Does the speaker provide an outline of the presentation in the introduction?

The body of the presentation

How does the speaker make the transition from the introduction to the body of the presentation?
Once this transition has occurred, what happens to the momentum of the presentation?
Is the content of the presentation current?
Is the content of the presentation placed in a wider research context?
Does it provide a balance between human interest and statistics?
Is it well organized and sequenced?
Are there obvious omissions in the content?
Is the content overly detailed?
Are there smooth transitions between each phase of the presentation?
Are AV supports used effectively?
Are written handouts used effectively?

The closing

Does the presentation end on time?
Does the speaker summarize the main points of the presentation?
Is the relevance of the presentation clear?
Does the speaker allow time for questions?
Does he/she invite questions?
How does the speaker respond to questions?
Does the speaker suggest further research or action?
Does the presentation end strongly, or does it fade?
Your question(s):

The response

Does the mood of the audience change over the course of the presentation?
What kinds of questions are asked at the end of the presentation?
As people leave the room, are they discussing the ideas from the presentation?
Is the speaker aware of the audience's response?
What will you remember from this presentation?
Your question(s):

the content, which was new to her, were more extensive. Under closing, she wrote, 'main points', 'update on patient', 'other applications of technology' and 'questions given respect and time'. Looking back over her notes, she was somewhat amused to notice the level of detail the questioning framework and chart had helped her to achieve, even in these cryptic notes. Amid the animated conversation as the room cleared, she briefly jotted 'connected' and 'really interested' before joining two colleagues for her own conversation about the presentation.

As the physician reviewed her conference notes during the flight home two days later, the medical physicist's

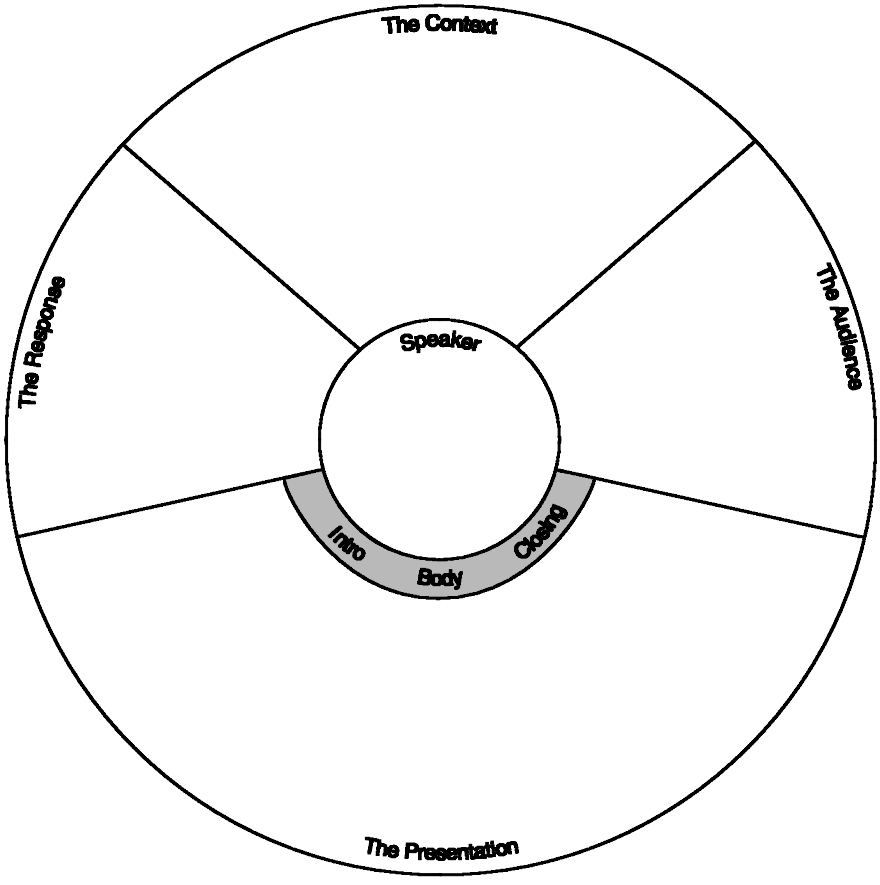

Figure 1. Presentation observation framework.

presentation came immediately to mind. Why did this presentation overshadow all the other sessions she had attended during the conference? As she looked back over the original questioning framework, she knew that she had seen other presenters at the conference using strong 'how to' knowledge in structuring their presentations. They, too, had provided clear introductions, well-organized content and an effective summary of main points in their conclusions. Yet, she knew that the impact of their sessions was already fading. The critical difference seemed to be that their presentations had been more detached in approach and more generic in format, whereas the medical physicist had gone well beyond a 'how to' level of structuring presentations, in that he was more aware of his audience and the importance of connecting with their experience. More importantly, his implicit beliefs about teaching, professional practice and presenting were reflected in his presentation. He communicated his genuine enthusiasm, his commitment, and his desire to have patients really understand their treatments. The physician realized that these were critical factors in why the audience had responded so positively.

Applying the analysis

The physician's thoughts shifted to the presentation she was planning for a group of family practitioners. It was a presentation she had given before, and her content was well developed. She had already updated the content for the coming session and until now, she had felt ready to present. Even though her presentation had been reasonably well received in the past, her reflections on the medical physicist's presentation were causing her to have second thoughts. She knew that her own session contained many of the elements found in his, including a case presentation. However, her style was much more detached from the experience of the patient and of the audience. She realized that she believed that formal presentations should be objective and technically strong. While this would still be important, she had become aware that including the experiences of the patient and of the physician would be an effective strategy for engaging her audience. It would also be a more authentic representation of her own practice, in which she felt very connected to the experiences of her patients. In the past, she prepared her presentations by focusing on content and on the sequencing of her slides. Now, she found herself thinking about how she would also use examples to connect with her audience. Her notes also made her think about a second neglected aspect of her past presentations: the anticipation of questions she might be asked and how she might respond. Although there were many lessons in the medical physicist's presentation, the physician decided that making connections with the experiences of the audience and anticipating their questions would be the two lessons she would apply to make her next presentation more effective.

Conclusion

When we attend professional sessions, such as conference papers, grand rounds, case presentations or continuing education, the natural emphasis is on content. Seldom do we attend for the primary purpose of learning how to make

more effective presentations ourselves. And yet that potential is always present. The strategy knowledge of the speaker is embedded in every presentation, but it is usually the content that we receive, process and take away with us. To optimize our learning opportunities, we need to make more explicit efforts to appreciate the presentation process.

The framework presented in this paper provides a tool for capitalizing on those learning opportunities. Such a tool is necessary because, as the medical physicist and the physician who attended his lecture illustrate, learning to make effective presentations is a complex process. First, we must acquire 'how to' knowledge: what the presenter does to structure a presentation, to hold our interest and to help us learn. Second, we have to learn the conditions under which different strategies work, what effects they are likely to have and how well they have worked in the past. This conditional knowledge is critical to whether we think to use a strategy when we are called on to make presentations, but is often more subtle, and requires careful analysis to uncover. Third, we need to develop beliefs about presenting, ourselves as presenters and our audiences that will support the effective use of presentation strategies. Recognizing our own beliefs and those of other presenters can be a challenging task, but efforts to do so will influence the choices we make about the strategies we use. Finally, we must be able to learn new strategy knowledge from our own presentations and from the presentations of others. Without this comprehensive approach to developing presentation strategy knowledge, we will frequently fail to apply strategies effectively, or to learn new strategies. The tools presented in this paper are intended to facilitate the identification and comparison of the various forms of strategy knowledge embedded in presentations. By explicitly monitoring, analyzing and applying the presentation strategy knowledge we observe in the presentations we give and attend, it is possible to compress the time it takes to acquire the high level of presentation skills expected in the health professions.

Notes on contributors

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Note

[1] The framework described in this paper was developed at The University of Manitoba, Winnipeg, Manitoba, Canada.

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