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Book Chapter: Informative Speaking

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CHAPTER 3: INFORMATIVE SPEAKING Sabrina Worsham and Kevin Jones

Understanding the Event

The American Forensics Association provides this "official" definition of Informative speaking:

An original, factual speech by the student on a realistic subject to fulfill the general aim to inform the audience. Audio-visual aids may or may not be used to supplement/reinforce the message. Multiple sources should be used and cited in the development of the speech. Minimal notes are permitted. Maximum time is 10 minutes including introduction.¹

Unlike persuasion or after dinner speaking, the goal of an informative speech is not to persuade the audience or change opinions. Rather the goal of an informative speech is to provide knowledge on a new, exciting subject. When preparing to write an informative speech, originality is essential. Joseph Devito explains informative speaking further in his book <u>The Communication Handbook</u>:

Technically information is something the [audience] does not already know... A speech devoted to what listeners already know is not an informative speech. In preparing and presenting informative speeches, you need to communicate something new to your receivers. It may be a new way of looking at old things or an old way of looking at new things.²

Informative speeches are unique because the subjects can vary from medical technology to animal research, as long as the topic is something that is new.

Getting Started

Before you begin preparing an Informative speech, you must read Chapter 2 of this book regarding Public Address or Platform events. Chapter 2 provides extremely important background information and material regarding the purpose, function and development of Public Address events. If you have not read Chapter 2 yet, read it now and then return to this chapter. If you have already read Chapter 2, then you are ready to proceed. As always, since different regions of the country have different preferences for informative speech topics and speech structure, always check with your coach to see how those preferences might differ from what is presented in this chapter.

Topic Selection

To begin the process of developing and writing an informative speech you must first decide on a topic. Topics can range from new technologies to new medical practices. The possibilities are endless. To begin looking for a topic, START READING. Dr. Bond Benton of the University of Miami at Ohio contends that a good way to begin research

for topics is to read science journals and magazines.³ Beyond these sources, most news sources such as the Sunday Chicago Sun Times will have articles that deal with new products and technologies.

Another deciding factor in topic selection is timeliness. Topics should be no more than six to twelve months old. You will be speaking on this topic for approximately nine months. If it is more than a year old when you start researching, it will be over two years old at nationals. The information will be outdated and no longer new. Once you have several possible topics talk to coaches and teammates to make sure that the topic is relevant and that the topic has not been used in forensic competition before.

When deciding on a topic it is crucial to find a topic that is new. Good informative speeches cause audience members to leave with thoughts such as, "that was interesting; I didn't know that before, I'd like to get some more information about that." Now that you have your topic, you are now ready to begin research.

Resources/Research

A crucial factor in writing an informative speech is the research process. Source citations add credibility to the speech and speaker. The best place to start researching is an Internet search engine such as Lexis-Nexis, Google, Yahoo and the Expanded Academic Index. These types of search engines allow researchers to gain access to legitimate and credible sources. Credible sources are mainstream newspaper articles and magazines as opposed to the National Enquirer or the Boston Globe. Our media may be biased, but it is the best source for current information. Also steer away from magazines about popular culture. Maxim may be a good bathroom read, but it isn't as helpful in finding informative research. By searching with a search engine, the researcher can also gain access to news articles while avoiding the charges that apply at many individual news sites.

Sources that will enhance the speech include newspapers and newsmagazines. As a general rule news articles are preferred over web sites. The Internet is an unmonitored venue in which there is no guarantee that the information is valid. This same concept applies to press releases that come from private corporations. Press releases may be used, claims made by the corporation or organization must be reinforced by other sources. As Benton explains "one press release covered by twenty five news papers does not provide a writer with twenty five pieces of evidence to back up [his or her] claim." ⁵

A "good" topic will be difficult to research. Many different competitors will present a topic that is easy to research. When Internet searches and library card catalogues yield too few sources it is time to conduct a personal interview with an expert on your informative topic. For example, if the topic is a specific technology that is being developed, it is likely that there are scientists who have worked on researching and developing this technology.

When contacting experts for personal interviews you must be persistent but not overbearing. Email is an excellent way to contact experts for personal interviews. Using the website of a university, a company, or a researching facility, find an expert in the field you are researching. Write an e-mail that explains who you are and what information you would like to acquire. If the email goes unanswered try finding a phone number and leave a message.

The end result of emails and messages will be an interview. In a phone conversation, you can both enhance personal knowledge and obtain valuable information to include in the speech. To ensure a positive, productive conversation—be prepared! First, have open-ended questions pre-arranged and be ready to take notes as the person answers. Second, be respectful and polite. Third, admit when you don't understand. Topics that are technical or medical can be difficult to understand. An authority can provide specific information and other publications to research. Thank the person for his or her time and ask if it would be possible to follow up if any more questions arise. Also, remember to write down the date and time of the interview and any other contact information needed. When writing an informative speech it is important to limit personal interviews to two. While answers from an expert in the field can enhance a speaker's credibility, other news sources must validate this information.

To be effective, research must be current. In informative, sources more than a year old are considered outdated. Technology is always changing; consider the jump from punch cards to the Pentium four. The purpose of an informative is to provide new information, not content that has been discussed in the classroom for years. Continually update the sources in your speech throughout the year.

Organizing Information

Research must be organized before you can start writing. First read through the research and get an idea of what direction you wish the speech to go in. Next make a detailed outline. While different sections of an Informative may vary, the structure should remain consistent.

Basic Informative Outline

Intro
AGD (Attention Getting Device)
Link (transition to topic)
Qualifier/ Significance Statement
Thesis Statement
Preview

I. First Main Point

A. First Sub Point

B. Second Sub Point

II. Second Main Point

A. First Sub Point

B. Second Sub Point

III. Third Main Point

A. First Sub Point

B. Second Sub Point

Review
Link back to Thesis statement
Link back to Attention Getter

Keeping this structure in mind reread your research. A helpful tool for organizing research is to plot out a basic idea of what your three main points should be. The different categories that can be used for your three main points will be discussed later in the chapter, see body of the speech. Using three colors of highlighters go through your research and highlight the information for each main point in a different color. This will give you a visual picture of how complete your research is. While doing this, try to find stories and anecdotes to use as a possible attention getter or as interest points throughout the speech.

Outline

Once the research has been sorted it is time to make a detailed outline. Write out one or two sentences for each main point and sub point. Then list what sources will go under each sub point. Each sub point should have one to two sources; remember to use a variety of sources in the speech. A detailed outline makes the actual writing of a speech very easy.

Writing

The most important factor in speech writing is a conversational tone. A speech is not an essay. While slang and informal language should not be used, neither should language that only a linguist can understand. The goal of an informative is to teach your audience about a subject of which they had no knowledge of, or to expand on existing knowledge. The speech must be able to be understood by the common person and not just an expert in the field.

The second writing device that must be utilized is the ability to play with words. Alliteration, puns, and metaphors can be helpful in keeping the audiences' attention. Humor, even if simplistic, can break up the information, allowing a listener more time to process the content of the speech.

The speech should also flow easily from one subject to the next. Fully explaining concepts and using internal reviews and previews allow a speech to be understood. Tell your audience where you are going and what they should listen for in an attempt to keep your speech moving forward according to a well-developed plan. Use precise vocabulary without being too technical for the audience. Simplify whenever possible.⁶

Attention Getter

The first part of the speech is the attention getting device, commonly referred to as an AGD. An AGD is a way of introducing your topic to the audience while gaining their interest. Your attention getter should be interesting and related to your topic. An enticing aspect of informative is that the AGD is not limited. You can open with an anecdote or story from your research, a movie or television show, a historical story or a societal trend that directly links to the topic. All of these ways are effective at opening an informative. There are several paths that are not as successful in gaining the attention of the audience. These include personal stories, rhetorical questions or a source citation. These create uncomfortable tension between the speaker and the audience. Provide your audience with an interesting gem of information that is relevant to the speech.

SAMPLE ATTENTION GETTING DEVICE:

In 1993, Florida fire fighter John Bartlette was fighting an ordinary house fire. He was rummaging through the ashes when he came upon something slimy and white, the only thing that hadn't burned. Curiosity inspired John to pick up the item and examine it. He squeezed it and smelled it. Much to his chagrin the item in John Bartlett's hand was nothing more than a dirty, stinky, used wet baby's diaper. Once John had recovered from the smell he began to wonder what makes an old Huggies or Pampers resistant to the fire?

Qualifier/ Significance Statement

The next step is a qualifier or significance statement. This statement tells the audience why your topic is important. A topic that has the potential to be successful is one that will have an impact of the lives of the audience. Briefly explain what the topic is, then add a source citation that states the impact of the topic is. The source in the qualifier should be a news source and not a personal interview or press release. If a company is making and promoting a product that is the greatest invention known to human kind, the bias is clear.

SAMPLE QUALIFER/SIGNIFICANCE STATEMENT:

A year later John had the answer and the newest invention in fire fighting technology: Barricade. Inspired by the coating of a diaper, Barricade is a new, strong, ultra-absorbent gel. ABC News May 14, 1999 reports that experts claim that Barricade is the greatest invention in fire fighting since the hose and pump. According to the web site, smokeybear.com dated March 18, 1999; fires caused 9.5 billion dollars in damage in 1997 alone.

Thesis Statement

To begin writing, you must first formulate a thesis statement. Unlike persuasive or after dinner speaking, an informative thesis does not make an argument. It is simply the topic of the speech and explanation of what the audience can expect to learn. To write a thesis statement, explain what you are talking about and why is it important.

SAMPLE THESIS STATEMENT:

Remember that only you can prevent forest fires, but now you can do it with Barricade.

Preview of Main Points

The last step of the introduction is the preview of the main points. A preview is a guideline for the audience to follow. When delivering a preview it is important to speak clear and slow enough so that if a person in the audience is taking notes on your speech, the judge for example, he or she has adequate time to write the three points down. The style of the preview may vary. Some may chose to write a "puny" preview while others take a straightforward approach.

SAMPLE PREVIEW:

In order to discover more about this new method of fire fighting we must first learn about what exactly Barricade is and where it came from. Second compare Barricade to traditional fire fighting methods. And finally look at the future applications of this diaper inspired gel.

Now put all the pieces together and create one complete introduction.

COMPLETE SAMPLE INTRODUCTION:

In 1993, Florida fire fighter John Bartlette was fighting an ordinary house fire. He was rummaging through the ashes when he came upon something slimy and white, the only thing that hadn't burned. Curiosity inspired John to pick up the item and examine it. He squeezed it and smelled it. Much to his chagrin the item in John Bartlett's hand was nothing more than a dirty, stinky, used wet baby's diaper. Once John had recovered from the smell he began to wonder what makes an old Huggies or Pampers resistant to the fire? A year later John had the answer and the newest invention in fire fighting technology, Barricade. Inspired by the coating of a diaper, Barricade is a new, strong, ultra-absorbent gel. ABC News May 14, 1999 reports that experts claim that Barricade is the greatest invention in fire fighting since the hose and pump. According to the web site, smokeybear.com dated March 18, 1999; fires caused 9.5 billion dollars in damage in 1997 alone. Remember that only you can prevent forest fires, but now you can do it with Barricade. In order to discover more about this new method of fire fighting we must first learn about what exactly Barricade is and where it came from. Second we will compare Barricade to traditional fire fighting methods. And finally we will look at the future applications of this diaper inspired gel.

Body of Speech

The body of the speech is where the majority of the information is given. The body of the speech is written by connecting the different parts of the outline. To write the body of the speech, first determine what the three main points will be. Informative is not limited to a specific structure such as problem, cause, and solution as in persuasion. Rather informative has many different organizational patterns that can be used. These include but are not limited to: the history and development of the topic, the applications, implications and the benefits and drawbacks. An informative speech can also be organized chronologically.

When structuring a speech, make sure there is a logical sequence. If your topic is a product, you should discuss what it looks like and how it was developed before explaining the applications and implications. Give the audience enough background information to understand complex concepts.

Break down each main point into two separate sections. For example if your main point is the advantages and disadvantages your first sub point should be the benefits and the second should be the drawbacks. If your main point is how a new machine works then your sub points could be what the machine looks like and the second sub point could be how it works. The sub points are a way of keeping the speech organized and on track. Determined what your three categories and sub points are, create an outline, and start writing.

Each sub point should consist of two or three paragraphs of information. Explain the various facets of your topic in a manner that is interesting and understandable. While talking down to your audience is not advised, an informative speech should contain rather simple language and break down complicated thoughts. As mentioned earlier, fun language and humor can also help your audience with new concepts.

Avoid using language that creates a mental barrier between yourself and the audience. This means exclusive words such as you and I. Instead chose inclusive phrases like we will and us. By connecting yourself to the audience verbally they are more likely to agree with what you are saying. In the following sample from the Barricade speech you will see how new information is presented clearly. Also observe the anecdotes and stories that help the speech flow. While the sample body points are not completely balanced, the imbalance worked for this topic. When writing, attempt to balance the main points. Each body point should be between one and one and a fourth pages in length, twelve point font with one-inch margins. To reach the desired time length of eight and a half to nine minutes, the entire speech should not exceed four and a half pages. The length may vary, but this is a good guideline.

SAMPLE BODY POINT ONE:

Barricade is a concentrated formula made up of polymers. Polymers are the components of a Velcro like laboratory made compound with very large molecules. According to the pamphlet Kids and Chemistry made by the American Chemical Society, these large molecules are made up of repeating smaller molecules. The exact chemical compound in Barricade is still a secret as the patent is pending. These Polymers were discovered in the chemical coating of a disposable baby diaper. The Polymers are able to hold up to hundreds of times their weight in water, which is why disposable diapers are more effective than cloth. As one Laguna Beach fire fighter told CNN on October 16, 1999, "If it is safe enough for a baby's bottom, it is safe enough for us!" When the concentrated liquid is diluted with water the solution forms a thick gel, which can be sprayed on surfaces such as trees, cars, houses and even airplanes using an ordinary garden hose. The gel adheres to the surface and absorbs the heat, which prevents the fire from burning the exposed areas. The gel is made up of small bubblets, or drops of water surrounded by a polymer shell. The Polymer bubblets are like stacking hundreds of fire absorbing sponges on top of each other. When one layer reaches the maximum heat capacity, there is another layer ready to protect the surface. Barricade is so effective it even keeps the inside of any structure cool. The St Petersburg Times, July 5, 1998, tells how Oregon fire fighter Bob Wilken saved a small black dog left behind by his owners using Barricade.

A fire was approaching the owner's house when Wilken spotted the dog. Wilken and several colleagues sprayed down the exterior of the doghouse and Barricade. They put the dog inside and hoped he would be safe. The dog is just fine and the fire fighters have nicknamed him Slimer, not after the ghost from Ghostbusters, but rather because they literally think the slime saved his life.

Since the introduction of the gel in 1996, Barricade has helped combat many large fires. In July of 1998 a fire raged through Flager County Florida reports the South Florida Business Journal, October 2, 1998. More than 20 homes were coated with Barricade, all were saved. Bartlette says if [Barricade] accomplishes nothing else, we've already made a big difference in those resident's lives.

SAMPLE BODY POINT 2:

The first method we will look at is the old fashioned method of hose and water. Fire fighters use highly pressurized hoses to spray gallons of water onto a burning structure or area. Unfortunately most of this water never reaches the fire. According to the Barricade Web Site dated April 28, 1999, a tremendous amount of the water, which is sprayed on the fire, evaporates in the super heated air above the fire. Because Barricade absorbs the heat, more of the fire quenching water actually reaches the fire. Water also runs off a structure easily. The thick consistency of Barricade makes Barricade "sticky water" which allows the structure to be protected for hours verses minutes. Although Barricade is a more effective method, it is also more costly. A one-time application for a three-bedroom home costs an estimated three hundred dollars. Yet experts claim that the gel is a worthwhile investment.

A second fire fighting method that must be looked at is the use of fire resistant foams, such as the forms used in ordinary fire extinguishers. Although these foams are effective for small fires, they can essentially be fuel for larger fires. Foams are chemical bubbles that are filled with air. When the foam reaches its boiling point, the air, which is mainly composed, of flammable gasses, is exposed to the fire. Barricade if filled with water, which is not flammable. <u>CBS</u> reports on May 25, 1999 that Barricade can be applied 6-8 hours in advance of the fire and can last many hours longer. Unlike foams Barricade is a method, which requires prior preparation. The gel must be ordered weeks in advance. In other words, Barricade works best when applied before a fire.

A third method of fire fighting, mainly used for fighting wild fires, is land clearing. <u>CNN</u> reports on April 20, 1999, that although land clearing can be effective, the procedure is susceptible to erratic winds and leads to environmental damage such as erosion. Barricade can also be sprayed in high winds around the fire in a fraction of the time. Although Barricade is environmentally safe, it is extremely slippery when wet. Tremendous caution must be taken one Barricade has been sprayed.

SAMPLE BODY POINT 3:

Barricade has potential domestic and commercial use. For homeowners who would like Barricade, they can order the gel online at barricadegel.com. The home protection kit comes with a one-gallon container of Barricade, instructions and a garden hose attachment. Unfortunately due to the high cost and prior preparation which Barricade takes, it is not likely to have wide spread use amongst homeowners, however. Barricade has already made advancements as far as commercial use. The Los Angeles Times reports on June 29, 1999; the Los Angeles fire department is one of the biggest buyers of Barricade. Barricade can easily be used in fire trucks designed to hold tanks of water or foams. 20 of the 100 engine companies in the Los Angeles district have been equipped to dispense Barricade. The U.S. Military and Florida's Power & Light Co. are also among the expanding list of companies who use this new gel. Florida Fire officials say it was critical in fighting last year's brush fires. Another Consumer of Barricade is the Indianapolis International Airport, and according to People Magazine, July 26, 1999 Even the FAA wants to study the use of Barricade on onboard fires.

Transition Sentences

Without transition sentences to connect the different sections of your speech, there could be mass confusion. Shifting sentences are needed to link together different parts of the speech. They also help guide the listener through the speech. Should audience members become lost or confused during the course of the presentation; a transition sentence will allow them to get back on track. Transition sentences serve as signposts to follow and are a great opportunity for humor. These segments sum up the information given and explain what the next section will cover. A crucial sentence that is often overlooked is the transition into the conclusion of the speech where the purpose of the speech is summed up in a few words.

SAMPLE TRANSITION FROM INTRODUCTION TO FIRST POINT:

First let's learn more about Barricade, a gel that according to John Bartlette was literally developed from the bottom up.

SAMPLE TRANSITION FROM FIRST POINT TO SECOND POINT:

We know more about what this gel is and where it came from, however; in order to understand the significance of Barricade, we must compare the new gel to traditional fire fighting methods.

SAMPLE TRANSITION FROM SECOND POINT TO THIRD POINT:

With this new technology being so effective and significant we musk ask, what is the future of Barricade?

Source Citations

An informative is nothing more than a home written prose without source citations. Research to back up your claims gives the speech and the speaker credibility. The source citations must be included in the body of the paragraph. A popular way of citing sources is to state 'according to (source).' Other ways of citing sources include starting with the source and adding a verb that means to state. States, explains, contends, argues, posits and asserts can all be used. Creativity and originality in citing can be used to set your speech apart from the others in the round.

Citations should always include complete source information. The first purpose of a source is to add credibility, ensuring the audience that the information is legitimate. The second function of a source is to allow a listener to find the same sources after the round. Thus the date, including the year, should be included in every source citation.

One trend in informative research that poses a unique problem is citing a website. The first step in citing a website is to use the phrases 'online' or 'website' as opposed to www or http, as both are difficult to pronounce. The ending of a website—dot com, dot net and dot org—must be stated, showing your audience what type of website you are referencing. When citing a specific article on a website, it is appropriate to cite the date the article was posted. If no posting date can be found, cite when the website is updated.

Three main problems occur during website citation. First, never cite a website by using the date last accessed. This is like citing a book from the 1950s by sating the date when you read the book. Second, never misinterpret dates. If an article or research was published years ago and a speaker cites a website saying updated daily, it is a false claim. This is an unethical process and can lead to contestation. Sources sites must be complete and honest.

Students have also been known to commit the fraudulent action of source splicing. This is when a student uses the reference citation page of a single article to cite additional sources under the guise as an original source citation. This is unethical forensics behavior. Even if an article directly quotes another source it is necessary to find the original document to ensure the validity of the source. Just because your roommate's Cosmopolitan cites the New York Times, *you* cannot cite the New York Times without finding the original article. When writing an informative speech it is important to be honest. The educational value of forensics has been supplanted by the desire to win. That is, people do not cheat in order to learn; they cheat in order to win.⁷

SAMPLE OF COMPLETE BODY OF SPEECH:

First let's learn more about Barricade, a gel that according to John Bartlette was literally developed from the bottom up. Barricade is a concentrated formula made up of polymers. Polymers are the components of a Velcro like laboratory made compound with very large molecules. According to the pamphlet Kids and Chemistry made by the American Chemical Society, these large molecules are made up of repeating smaller

molecules. The exact chemical compound in Barricade is still a secret as the patent is pending. These Polymers were discovered in the chemical coating of a disposable baby diaper. The Polymers are able to hold up to hundreds of times their weight in water, which is why disposable diapers are more effective than cloth. As one Laguna Beach fire fighter told CNN on October 16, 1999, "If it is safe enough for a baby's bottom, it is safe enough for us!" When the concentrated liquid is diluted with water the solution forms a thick gel, which can be sprayed on surfaces such as trees, cars, houses and even airplanes using an ordinary garden hose. The gel adheres to the surface and absorbs the heat, which prevents the fire from burning the exposed areas. The gel is made up of small bubblets, or drops of water surrounded by a polymer shell. The Polymer bubblets are like stacking hundreds of fire absorbing sponges on top of each other. When one layer reaches the maximum heat capacity, there is another layer ready to protect the surface. Barricade is so effective it even keeps the inside of any structure cool. The St Petersburg Times, July 5, 1998, tells how Oregon fire fighter Bob Wilken saved a small black dog left behind by his owners using Barricade.

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We know more about what this gel is and where it came from, however; in order to understand the significance of Barricade, we must compare the new gel to traditional fire fighting methods. The first method we will look at is the old fashioned method of hose and water. Fire fighters use highly pressurized hoses to spray gallons of water onto a burning structure or area. Unfortunately most of this water never reaches the fire. According to the <u>Barricade Website</u> dated April 28, 1999, a tremendous amount of the water, which is sprayed on the fire, evaporates in the super heated air above the fire. Because Barricade absorbs the heat, more of the fire quenching water actually reaches the fire. Water also runs off a structure easily. The thick consistency of Barricade makes Barricade "sticky water" which allows the structure to be protected for hours verses minutes. Although Barricade is a more effective method, it is also more

costly. A one-time application for a three-bedroom home costs an estimated three hundred dollars. Experts claim that the gel is a worthwhile investment.

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With this new technology being so effective and significant we musk ask: what is the future of Barricade? Barricade has potential domestic and commercial use. For homeowners who would like Barricade, they can order the gel online at barricadegel.com. The home protection kit comes with a one-gallon container of Barricade, instructions and a garden hose attachment. Unfortunately due to the high cost and prior preparation which Barricade takes, it is not likely to have wide spread use amongst homeowners, however. Barricade has already made advancements as far as commercial use. The Los Angeles Times reports on June 29, 1999; The Los Angeles fire department is one of the biggest buyers of Barricade. Barricade can easily be used in fire trucks designed to hold tanks of water or foams. 20 of the 100 engine companies in the Los Angeles district have been equipped to dispense Barricade. The U.S. Military and Florida's Power & Light Co. are also among the expanding list of companies who use this new gel. Florida Fire officials say it was critical in fighting last year's brush fires. Another Consumer of Barricade is the Indianapolis International Airport, and according to People Magazine, July 26, 1999 Even the FAA wants to study the use of Barricade on onboard fires.

Conclusion

The last step in the speech is the conclusion. Every conclusion should start with a transition. As discussed earlier, the final transition is an opportunity to leave a lasting statement in the mind of the listener. This will separate your speech from the other informative speeches in the round. The next step in the conclusion is a review of main points. Similar to the preview, a review states each main point in the past tense, we looked at as opposed to we will look. Tell them what you're going to tell them in the preview, tell them in the body, and now tell them what you told them in the review.

SAMPLE REVIEW OF BODY POINTS:

Today we have discovered first what exactly barricade is and where it came from, second, compared Barricade to traditional fire fighting methods, and finally looked at the future applications of this new fire fighting technology.

Thesis Tie-Back

After reviewing the main points it is important to restate your thesis statement. This is essential, as it will remind the audience that you have fulfilled your original goal. In doing this, you will also solidify the social significance of the speech.

SAMPLE THESIS TIEBACK:

We have seen that technology coming from a stinky, dirty diaper has the potential to save hundreds of acres of land, as well as homes, cars, buildings, and even the family pet from the dangers of fire.

Closing Statement

At last it is time to end your speech. The best way of closing a speech is tying back to the attention getting device. By doing so, you will tie up your speech neatly while leaving your audience with some way of remembering your speech. Just remember to end your speech with a bang.⁸

SAMPLE CLOSING STATEMENT:

When looking at Barricade we must remember the most recent slogan for Pampers; too much to ask from a diaper? Not Anymore!

Congratulations! You have a complete speech. Here is another sample of an informative to give you a better idea on how to use the techniques that have been discussed.

SAMPLE INFORMATIVE SPEECH:

"In this Universe there is only one absolute, everything freezes!" With his menacing ice gun, Mr. Freeze, played by Arnold Swartzeneger, teaches us two lessons. First, bad acting will land you a role in a Batman

and Robin movie if you are a name and second, the ability to freeze objects can get you far. A recent advancement in the field of physics is proving that the ideas behind the movie could truly become reality. In January of 2001 researchers accomplished what many thought would only be a dream, they froze light. More specifically they have slowed a light beam to a halt and trapped it in a container of frozen gas. As the <u>London Guardian</u> of January 19, 2001 asserts, this baffling accomplishment proves the potential for light speed Internet and quantum computers, high-speed super computers, is a reality. To learn more about the phenomenon of freezing light, we must first see how light was frozen. Second we will examine how frozen light helps us before finally exploring the implications of this technology.

Like Batman to Mr. Freeze, Light speed is the ultimate barrier but what about the other end of the spectrum? Due to the complex nature of light, the ability to bring it to a controlled stand still has been impossible, This has frustrated researchers for years because according to the aforementioned London Guardian, scientists have long known the power which light possesses. The ability to start and stop light opens up a variety of technological possibilities that truly are the next step in the computer age. With this in mind two groups, both from Cambridge Massachusetts have achieved total manipulation. Dr. Lene Hau of Harvard University heads the first team and Dr. Ronald Walsworth and Dr. Mikhail Lukin of the Harvard-Smithsonian Center for Astrophysics lead the second. Using the same process, both were able to trap and freeze light. And they started using the concepts behind glasses and contact lenses. According to the New York Times of January 19, 2001 transparent mediums, such as water, crystal and glass have the ability to slightly slow down light rays. The technique was used by the researchers but at a much larger scale.

To begin, the researchers prepared special containers of gas cooled to near absolute zero. According to the <u>Florida Times Union</u> of January 21, 2001 Dr. Hau's team used sodium ions while the second team used rubidium. The crucial technique that was employed by both groups was the use of a coupling beam.

The aforementioned New York Times explains that the light-halting experiments rely on a complex phenomenon in gasses called electro magnetically induced transparency. This property allows gasses that are normally cloudy like sodium or rubidium to become clear or transparent. The physicists took a container of gas and turn on the coupling beam or a secondary beam of light. They then wait until the primary beam of light, or the light that is to be frozen enters the gas filled chamber. By slowly reducing the intensity of the coupling beam, the atoms of gas are then able to stop the light, freezing it inside the container and allowing for manipulation. To release the frozen light, the secondary or coupling beam

is turned back on distracting the atoms long enough to allow the primary beam to leave the container.

Now that we understand how freezing light works, we can explore how this science will eventually be used in our daily lives. To do so we must first understand the critical link between the process of freezing light and a functional technology, the ability to manipulate quantum mechanical information or QMI. It is a little complicated but thankfully Dr. Ronald Walsworth explained how it works in a personal interview on October 2, 2001. He stated that conventional information is stored on atoms. And atoms have a spin, up or down, limiting the amount of information stored. Quantum Mechanical information or QMI is information that is stored on electrons that can spin up and down at the same time carrying much more information. The problem is that traditional ways of moving information, electrical signals and fiber optic cables cannot carry QMI's. Here's where frozen light comes in. When light is able to be stopped QMI's can be stored in light's electrons. By stopping and starting the light, the information can be transported from place to place at light speed through complex fiber optic cables. It is like the plastic transport containers at a drive through bank teller, only faster.

Now that we understand the link that makes frozen light practical, we can look at the two largest applications: quantum computers and a revolution in high-speed communication. Scientific American of July 2001 explains that a quantum computer will replace the binary code, or the series of ones and zeros that allow a conventional computer to run with quantum bits or qubits. The power of a qubit is that it is not limited to the values of 0 and 1, qubits can multitask. The problem with qubits is that they are unstable and cannot interact directly with other qubits. When light can be harnessed through the process of freezing, it can be directed in a manner that will permit the qubits to communicate, allowing the quantum computer to become a reality.

A second application of frozen light is a revolution in the field of high tech communications. The San Francisco Chronicle of April 1, 2001 asserts that when the ability to freeze light is mastered, communication between computers via networks and the Internet will be instant, thus Internet searches will occur at the speed of light, *thanks to frozen light*. Not only are these information transactions instant, but they are also secure. The aforementioned Scientific American argues that it is difficult to hack into an information exchange that is traveling at the speed of light.

Now that we have learned more about the process of freezing light and its applications, we must go back to the labs to see what the implications of this new technology are. In a January 19, 2001 interview on National Public Radio, Dr. Seth Lloyd, a mechanical engineering

professor at MIT, explains that although this break through is revolutionary, there are many obstacles for researchers to overcome. The largest hurdle that must be cleared is the instability of the light. It is a very difficult process to slow a beam on light from 300 million meters a second to a stand still. Light has only been frozen twice after years of research. The ability to recreate such a scientific endeavor on a massive scale is years away. The Times of India of February 5, 2001 also asserts that although this process does not break any laws of physics it is still a mind boggling concept that many will have a difficult time accepting. U.S.
News and World Reports of March 19, 2001 states that new complex fiber optic cables and computers that can manipulate QMI must be developed and installed to make frozen light user friendly. This will take decades to implement.

Despite these challenges, the physicists are well on their way to manipulating the ultimate barrier, the speed of light. The aforementioned Times of India asserts that many other technologies can now be developed using this practice, such as the development of ultra-sensitive night-vision glasses, ultra-clear telecommunications, laser light projectors that could project crystal clear images. Scientific American of July 2001 explains that even if frozen light does not prove to be the most convenient and versatile component for building quantum computers or studying black holes, it has opened up more then enough research applications to keep many physicists busy for years to come.

In the end, Mr. Freeze was a flop. The Joker was a much better villain. But the ability to freeze continues to be a success. Thanks to the advent of frozen light, many technologies may have a chance of one-day becoming a reality. By examining how researchers were able to freeze light, the future applications of this technology and the challenges faced by physicists, we have seen how today's researchers are breathing life into what was once, complete science fiction. The process of freezing light opens up a multitude of doorways for the scientific community, as well as the potential for yet another Batman and Robin movie.

Visual Aides

Once a speech has been written you must determine if your speech warrants visual aids. Visual Aids (VAs) are justified when the topic needs a visual explanation to break down complex ideas. VAs should be big enough for an audience to see them clearly. There should not be a tremendous amount of writing as it will be difficult to read and distract from your presentation. The pictures should be in color and of good quality. Pictures in magazines will be much clearer than pictures from the Internet when blown up. Hand drawn or colored VAs may look nice, but like Birkenstocks on a tournament day, they simply aren't professional.

To make a visual aid, use black matte board from an arts and crafts store. Enlarge the image using a color photocopier. With practice, you can do this yourself without paying the copy store employees a small fortune to do it for you. Double-sided sticky tape and spray mount are good options for attaching the pictures to the board. Some competitors chose to laminate the visual aid to keep the image clean. The downside to this is the glare that fluorescent lights can cause. If you want to protect the visual aid, try spraying a clear sealing spray over the VA. If the VAs are already laminated spray them with a matte finishing spray. Both sprays can be bought at your local craft store.

After the visual aids are made it is time to think about carrying them. A visual aid carrying case is recommended to keep VAs clean. A visual aid stand should be secure and if possible black to match the VAs. A stand that sets on the floor is preferred to a tabletop VA stand, as you are not guaranteed to have a table in the room. Working with VAs requires practice so that movements are smooth. Learn to speak while flipping over a VA cover, facing your audience. Also try to gesture and point to the VA without covering the full picture. VAs should enhance and not distract from a presentation.

Memorization

Your speech is written and now it is time to memorize. One of the best ways to memorize is to memorize a few lines at a time. Stop every so often to check your ability to say the speech from the beginning. Writing the speech onto note cards in red ink also can give you a memorization goal. Memorize the first card and move onto the second. Never use note card in a competitive forensics round. While memorization may be difficult, it can be done. Using note cards shows that you are unprepared.

Practicing

Once you are memorized it is time to practice. An informative speech should be practiced standing up and with visual aids if you have them. Get comfortable with the speech and information about the topic. One way to practice in front of a mirror or videotape yourself giving the speech. These methods of practicing are very uncomfortable at first. However, practice does indeed make perfect. By viewing yourself in performance, you see what an audience does. Delivery should be confident and conversational as well as interesting and eloquent. Remember that you are teaching your audience something new. Therefore, the rate should be slow enough that the audience is able to grasp the new concepts. Be sure to have fun when giving your speech. If you are energetic and excited about a topic, you encourage your audience to do the same.

Additional Reading

For additional information on informative speaking, try reading <u>The Art of Public Speaking</u> by Stephen E. Lucas or <u>Essentials of Informative Speaking</u>: <u>Theory and Contexts</u> by Rudolph F. Verderber.

< http://web.utk.edu/~gwynne/info_lecture.html>.

¹ <u>Southern Utah University Forensics Event Descriptions</u>, 8 June 2000, Dept. of SpeechCommunication, 29 Jul. 2003 http://www.suu.edu/hss/comm/forensics/event.html#ies.

² Joseph A. Devito, <u>The Communication Handbook</u>. (New York: Harper & Row Publishers, 1986) 156-157.

³ Bond Benton, personal interview. 24 July 2002.

⁴ Thomas H. Olbricht, <u>Informative Speaking</u> (Glenview: Foresman, 1968) 43.

⁵ Benton.

⁶ Robert Gwynne, "Informative Speech Lecture Notes." <u>Robert Gwynne: University of Tennesse at Knoxville</u>, Jan. 1999: n. pag. Online. Internet. 5 Jul. 2002.

⁷ Ann Burnett, Jeffrey Brand, and Mark Meister. "Forensics Education? How the Structure and Discourse of Forensics Promotes Competition." <u>Argumentation and Advocacy</u> 38 (2001): 106-109.

⁸ Olbricht 93.

⁹ Olbricht 102.