



Speakers' guidelines for visuals

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Where do you begin?

After marking your calendar to speak or teach at a conference, workshop, or class, what comes next? Do you plan your subject matter? Or visuals, if any? Neither. You know your subject, and it's too early to consider visuals. You need more basic information before deciding how to prepare and present your material.

Begin by writing down answers to the following questions. Some may need to be answered by other persons. Others will require a careful look at your own assumptions and attitudes.

- Who is your audience? Define characteristics that could affect your presentation—age, education, sex, economic level, occupation(s), problems, and skills. How large is the audience? How diverse?
- What is your topic? Be specific. Define your objectives. What do you expect the result of your talk to be? How can you evaluate these objectives? Can you measure how close you came to achieving them?
- Relate the subject matter to your audience. How interested are they likely to be in your topic? How familiar with it? Will they be enthusiastic? Disinterested? Hostile? Motivated? Is it complex material that they may have trouble understanding? Is it necessary to their livelihoods? Will they be required to take action based on the information you give?
- How do you feel about the subject matter and the audience? Insecure? Knowledgeable? Neutral?
- What kind of program will it be? What is the purpose of the meeting? Who are the other speakers and what topics will they address? What is the length of the entire program and your part in it? Where do you come on the program: in relation to other speakers, before or after lunch or a break in the program, early or late in the day?
- What will the facilities be like? What is the room size and seating arrangement? Can the room be darkened? Are there visibility problems? What audio visual (AV) equipment will be available? Do you know how to operate it?
- What resources are available to you in your preparation and presentation? People? Equipment? Services?
- What are the possible ways to present your topic? Write them all down. Even brainstorming the most far-fetched techniques may lead to some more practical, yet innovative, methods. If you always stick with the same teaching methods, you may be overlooking more effective ways to make your point.

Once you have a clear understanding of your audience, the topic, attitudes, facilities, and resources, you can make decisions about how to present the material, and whether to use visuals.

Visuals need not be limited to traditional projected teaching visuals. Although slides, overheads, and films are among the most often used, consider such possibilities as showing the actual objects, models, photographs, displays, passing around samples, taking a field trip, or offering a hands-on experience.

Why use visuals?

Is it really necessary to use visuals when giving a talk? Can't people just hear what you have to say, understand, and remember it? Research indicates they can't very well. When the same material is taught with and without visuals, adults learn more from the visual presentations. When one audience was tested 3 hours after a presentation using both words and visuals, 85 percent of the material was remembered, vs. 70 percent for another audience hearing the same talk without visuals. Ten days later, the group seeing visuals recalled 65 percent of the material; the words-only group could only recall 10 percent.

Researchers estimate that of all the information each person knows, 6 percent comes through the senses of touch, taste, and smell; another 11 percent through hearing; and 83 percent through seeing. It does not mean visual elements should replace verbal, just that the two complement each other for results that neither could achieve alone.

Good visuals can accomplish several things simultaneously. They can:

- **Avoid misconceptions** by illustrating, clarifying, and supporting your verbal material
- **Focus attention** on what you are saying and away from distractions
- **Save time** because concepts are presented faster and understood more quickly
- **Show concepts**, places, and new experiences not easily explained
- **Help the talk progress** in a logical order and let the audience see where it is leading
- **Make learning easier** and more enjoyable

Choosing the most appropriate visual methods

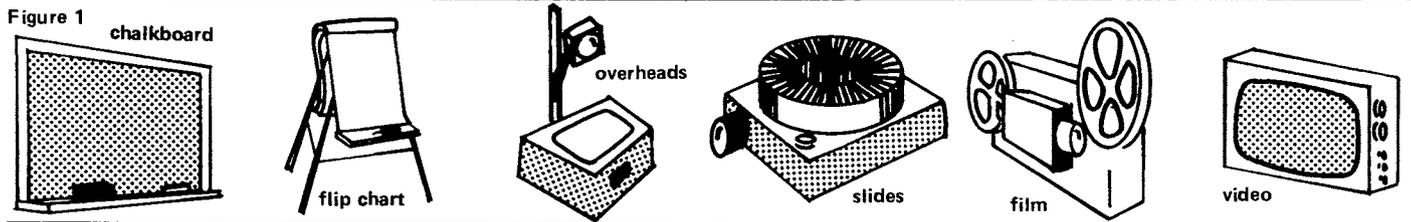
Some visual methods can be eliminated based on information you collected earlier. For example, the audience may be too large to make a hands-on approach practical. Or the room may be impossible to darken, eliminating most projected visuals. Other limitations, such as budget, facilities, or time will eliminate other teaching methods.

Kinds of learning experiences can range from direct experience to pure abstraction. First hand, purposeful experiences, involving doing (direct or contrived experiences, or dramatic participation) can be the most effective way to learn; however, this is not always possible. Learning through observation (demonstrations, field trips, exhibits, movies, recordings, and still photos) is the next level of effectiveness, followed by learning by symbolizing (visual and verbal symbols).

Consider all possible teaching support materials:

- **Three-dimensional visuals**, the actual things, a model, either enlarged or reduced from actual size or with cut-away views, or with movable parts, are very effective because so real looking. However, they are often bulky to transport, and expensive to produce or purchase. They are most practical if many years of use can justify cost and if they can be viewed from a stationary location.
- **Active graphics** such as a flannel or magnetic board, or sometimes a flip chart or chalkboard, allow pieces to be moved around to demonstrate action, flow, or step-by-

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step progression. They attract and hold audience attention and are especially effective with children. They can be used in any location, with large or small audiences.

- **Static graphics** include maps, charts, graphs, posters, photos, displays, and exhibits. They are the simplest and most economical visuals to produce or purchase. As with all of these visuals, be sure they can be clearly seen even by those in the back row.
- **Projected visuals** such as overheads, slides, film strips, or opaque projections are practical with large audiences because the image size can usually be enlarged enough for clear viewing everywhere. They are also easy and inexpensive to produce. Although they require projection equipment, it is usually portable and the visuals small.

The most commonly used visuals

Chalkboards, flip charts, overheads, slides, and movies (figure 1) are probably the most adaptable and available visuals, and as a result, the most likely to be used and perhaps misused and overused. They each have distinct advantages and disadvantages which tend to be overlooked when their use is habit rather than appropriateness.

The chalkboard is probably the least visual of all teaching aids. It is often used just to list key points as they develop in sequence, or to show correct spelling of new terms. Even such minimal visual support is better than none. The chalkboard's main advantage—little or no advance preparation is necessary—is also its main disadvantage, since not having to prepare visuals can result in a poorly thought-out presentation. If visuals are drawn on the board ahead of time, space is limited and the images compete with each other for attention and are temporary. An advantage is that a board is almost always available and is not subject to equipment malfunctions. It should not be used in a room larger than an ordinary classroom because of limited visibility. Wording is only as legible as the speaker's handwriting, which can be quite bad, or too small. Another disadvantage: the speaker's back is turned to the audience and the smooth flow of the presentation is broken when the chalkboard is in use.

A flip chart can be used like a chalkboard, although it is smaller and should be limited to small audiences. It can be prepared ahead of time, stored, and used again. Flip charts are somewhat portable and can be used anywhere. Colored markers can offer variety and flat objects can be attached to the pages. Wording is usually hand-lettered and legibility problems are apparent if done by an amateur.

Overheads are easy and inexpensive for the AV specialist or user to produce or they can be purchased readymade on a variety of basic subjects. As a projected visual, the image can be enlarged enough to be readable by everyone in even a large audience. The speaker can face the audience while using overheads, and some lights may be left on for easy note taking.

The speaker can build on a concept or add to an illustration by using overlays; or parts of the visual can be covered until

choosing to reveal them. Prepared visuals can be marked on for emphasis or information added with colored felt pens that clean off for reuse. Blank overheads and the felt markers can be used as a chalkboard substitute. This has its advantages: the speaker keeps eye contact with the audience, writes on a horizontal plane in handwriting not much larger than normal, and the image is projected large enough to be easily seen. (Again, the handwriting legibility problem.) A pile of overheads can be rearranged and edited to suit a particular audience, even during the presentation.

The major disadvantage of overheads is that amateur-made visuals often have type that is too small to read, even when enlarged through projection. Typewriter type is inadequate and must be at least twice as large before transferring to the visual. Also, realism is difficult to achieve, since photographs are expensive to convert to overhead form. Art can be detailed and realistic, but it is usually more effective if simplified. Colors are added to overheads one color at a time and color choice is often limited.

Despite these drawbacks, overheads are practical for charts, graphs, and simplified diagrams.

Slides can be made of tables, charts, graphs, diagrams, type, photos, art, or combinations of these, and integrated with slides shot on location. Slides are relatively inexpensive and easy to produce and make maximum use of color and realism. They produce a high-quality, sharp image with potential for extreme enlargements in projection. With proper closeup photography equipment, the original can be as small as typewritten words and as simple to prepare.

Slides can be selected from a file beforehand and arranged in any order or combination to suit a specific audience. New slides can easily be added, and old ones removed or updated. Slides are small, convenient to store, and very portable for traveling either with or without the projector.

Slides are extremely flexible for presentations, whether supporting a speech or combining with other teaching methods. A slide show can be easily synchronized with a taped narration and musical background, or even expanded for an elaborate computerized multi-media extravaganza.

The major disadvantage of slides is need for a completely darkened room to be most effective. This limits the locations for use and restricts the audience's ability to take notes. Slides are often misused by not editing thoroughly enough and using too many for too long—producing sleep not stimulation.

16mm film or video tape, when well done, can be a very effective teaching visual for showing a technique, process, or event not easily demonstrated (especially when motion is a major concern) in the meeting or classroom. It can make use of special photographic techniques such as time lapse, animation, or (closeup) microphotography, which are not as available or as effective in other media.

Films can be expensive and time consuming to produce, but they can be purchased or rented reasonably. Locating a movie to fit an exact need can be a problem. The speaker may choose

to show only a portion of a film not suitable in its entirety, or the film may be preceded by an explanation of its limited application to the topic or followed by a group discussion to determine its application.

Video tape is easier and cheaper to produce if the proper facilities and services are available. It is an excellent tool for immediate feedback: students can watch themselves give a speech, for example. However, for prepared instructional materials, keep in mind that audiences are used to—and expect—technical quality on a par with commercial television. Because of this comparison, video presentations should be limited to quality, professionally produced material especially suited for this media or you may find the audience tunes you out.

Because of the relatively small viewing area (25-inch diagonal screen), video is best used for one-to-one teaching or with very small groups. Large meetings require special hookups and multiple monitors which tend to be more distracting than effective. Equipment is extremely bulky and heavy to transport, as well as tricky to use.

If some professionally prepared video materials are available to rent or purchase, it would be more economical than 16mm film. However, be sure it is compatible with the type video equipment available to you.

Both video and film add a dimension of novelty to a presentation. However, these media, as well as slides, overheads, flip charts, chalkboards, or any other visuals, should always be used because of their appropriateness to the message, audience, and external circumstances, not because of novelty, ease, or entertainment.

Planning your visual support

If, after considering all possible teaching methods, you decide to use visuals, the following guidelines should help in the planning stages, no matter what the media.

Remember, visuals should complement and support the verbal message, not replace it. Visuals should not be complex enough to stand alone. An effective speaker balances brief but explicit words with visuals that emphasize key points and illustrate or clarify complex concepts.

And, don't repeat the obvious, "This is a picture of . . ." Your audience can see that. Take the image a step or two further by giving more information than is readily seen. Don't read the visual to the audience, but rather flesh out the information.

Keep each image simple: one idea per visual. Several simple visuals are easier to understand than one complex one. Complicated charts or diagrams may be appropriate for printed materials which can be studied thoroughly and referred to often. But AV materials are fleeting images controlled by the speaker and should not contain more information than described by the speaker, or more than the audience can comprehend in the brief viewing time. Simplify the information and if necessary, save the complex version of a chart or graph for written form in a handout or the proceedings or abstract.

Keep a balance of verbal and visual symbols. Words and pictures should support each other and what is being said. Usually a title or heading is needed to identify the visual or coordinate it with the talk. Add color for variety and emphasis but don't overuse it to the extent that it bogs down the message.

Pace the visuals throughout the talk, or that portion requiring them. Develop a rhythm. Visuals lose impact if shown too long and distract when the speaker has moved on to the next topic.

Words, lettering, and type

Wording on visuals should be brief and concise. Don't use complete sentences. Key words will suffice since the speaker will be filling in details (figure 2).

Wording

- brief
- key words
- incomplete sentences
- only support material

Figure 2

The 24 words above can be reduced to nine words for a visual.

Try to limit yourself to 15-20 words per visual. Fifty words is absolute maximum for a word-only visual and if your presentation has very many such visuals, more editing is needed or the content should be split among several. Tables or charts should have no more than 25-30 elements (the Art and Type chart on page 7 has 28 elements). Eliminate any elements (a column in a table, for example) or words not covered by the speaker. Headings should identify and not duplicate the material.

The fewer words used, the easier to make lettering large enough for everyone to read. A rule of thumb is that lettering should be 1 inch tall for every 25 feet of viewing distance. So if the back row is 75 feet from the visual, letters must be 3 inches tall. (How to achieve optimum type size on projected visuals is discussed later.) This explains why you must know audience and room size before producing visuals.

Use lower case lettering (a, b, c) except for the first letter of titles or proper words because they are more legible than capitals (A, B, C). We read by recognizing word shapes as well as individual letters. Some lower case letters are taller (b, d, f, h, k, l, t) and others go below the base line (g, j, p, q) while others are in between (a, c, e, i, etc.). This variety gives lower case words easily recognizable shapes, while capitals are all the same size and have the same word shapes (figure 3). Capitals are often used because they are larger, and assumed to be more legible (compare sentences a and b in figure 4). However, you would be better off enlarging the lower case lettering to at least the size of the capitals (compare sentences b and c) to achieve both size and legibility.

Figure 3

ALL CAPS WORDS
ARE HARDER TO READ
 because
they lack the unique
shapes of lower case

- Figure 4**
- a. Lower case is more legible than all capitals.
 - b. LOWER CASE IS MORE LEGIBLE THAN ALL CAPITALS.
 - c. Lower case is more legible than all capitals.

Choose a simple block letter style for visuals that is fairly bold. The first example in figure 5 is far too ornate to be easily read and inappropriate for visuals. The second sample is known as roman type, and while it is commonly used in print, it is less successful for visuals. Typical roman characteristics are the serifs (or little feet at the ends of the strokes) and the varying stroke widths. Some roman types, when projected or viewed

Figure 5

Simple Lettering
Simple Lettering
Simple Lettering
Simple Lettering

from a distance, lose their thin strokes and/or the serifs deteriorate, making them difficult to read. The third example is known as sans serif (without serifs) or gothic type, the style appropriate for visuals, but too light for easy reading. The last example is a good sans serif for visuals, bold and dark enough to read from a distance, not too wide or too narrow. Some good type styles to request for visuals are Univers, Helvetica, Helios, News Gothic, or something like them, in bold or demi-bold weight. Standardize with one style so your visuals are consistent. Headings can be a larger size, bolder style, or different color.

Figure 6

Wrong Right

When using stencils for lettering, fill in the small gaps unique to stencils for easier recognition of the letters (figure 6).

Colored lettering can attract or detract, depending on use. Never alternate colors from one letter or word to the next. For maximum visibility, type should be in a color that contrasts highly with the background—such as black or dark blue on a white or very light background. Don't use colors that clash or otherwise detract from readability. Color can serve a function beyond being an attention-getting device or decoration. If used for emphasis or as a cue—major headings in red, or tables on a blue background, for example—color should be consistent throughout and the meaning should be clear to the audience. Generally use color sparingly and subtly.

Spacing can be critical to legibility of lettering. Letters within a word should be close, but not touching. Letters should look as if they have even spaces between them, even if they don't measure equally. Word spacing is easier. Leave the amount of space needed to insert a lower case "i" between words (figure 7). Lines of lettering should have enough space between them so that the tails, or descenders of some lower case letters (g, j, p, q, y) don't touch the capitals of the line below. Space equal to ½ the height of the capital is usually sufficient (figure 8). Too much space between lines breaks up continuity.

Figure 7

i i
Set words close.

Figure 8

3"
1½" } Space between
lines of type

Hand lettering should be reserved only for visuals that will be viewed from a distance and are not practical to set in type, such as flip charts or posters. Hand lettering on projected visuals is enlarged and every imperfection is magnified, distracting from the message (figure 9). Exhibits or displays are often lettered by hand, and although not projected, the lettering is inspected closely by the viewer. Whenever possible such lettering should be professionally done, following all of the rules given here applying to type.

Figure 9

Hand Lettering
is rarely as legible or
professional-looking as type.

Tables and tabular material often are too complex to work well as visuals. Keep in mind that when 25-30 elements are maximum, a table should have no more than 5 or 6 lines with 4 or 5 columns. If a table is larger, divide it in equal parts of no more than 7 lines each, with each section on a separate visual and the title and column headings repeated on each visual. Even several such tables in a row can be tiring for the audience to read and absorb.

Leave more than the usual amount of space between lines so the eye can easily follow across several columns. A horizontal line can help group information. Eliminate all information not referred to by the speaker, but include all information the audience will need. An audience should not have to total columns or percentages.

Graphics

Art, illustrations, diagrams, photos, charts, and graphs are the picture part of a well-balanced word/picture visual. Like words, the picture needs to be simple, clear, and concise. Edit any unneeded elements or details that may confuse or detract from the visual's message, or distract from what the speaker is saying.

Art can be used to show what a photo cannot—insides, enlargements, simplified details, abstractions, exaggeration, humor, etc. Photos are more appropriate for realism, accuracy, and technical detail. Art visuals and photography visuals can effectively be combined in the same presentation to show both sides of the subject—the abstract concepts or difficult to picture items, and the actual subject or process. Titles, tables, and other type-only visuals round out the presentation.

Published graphics usually are too detailed for direct conversion to visuals. They should be redrawn, simplified, color added, lines darkened, and type enlarged (figure 10).

Art, just as type, should be consistent throughout the presentation. Use the same art style, technique, graph format, and color scheme on all illustrated visuals.

Charts and graphs, when well done, can convey statistical data faster and more efficiently than a written or spoken description. Different kinds of charts convey different kinds of information (figure 11). Bar and line graphs can show compari-

Figure 10 Top: art for publication
Bottom: redone for visual

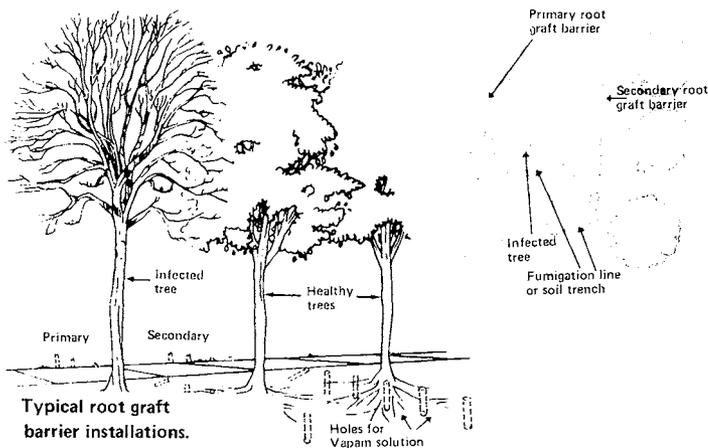
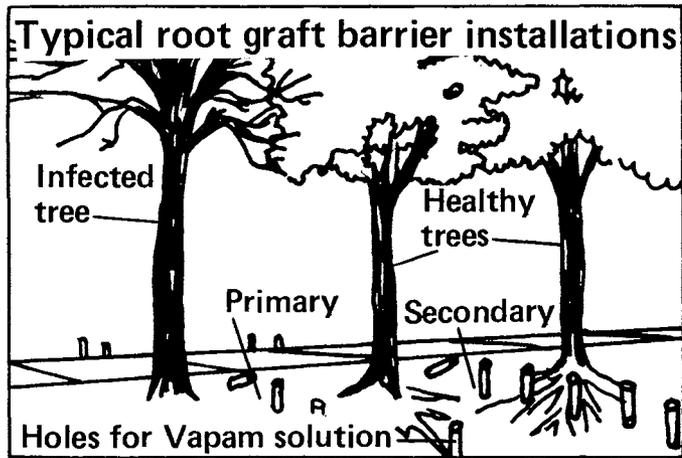
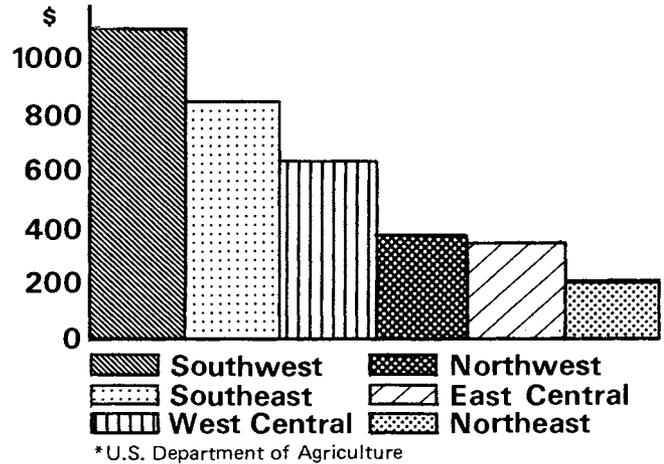
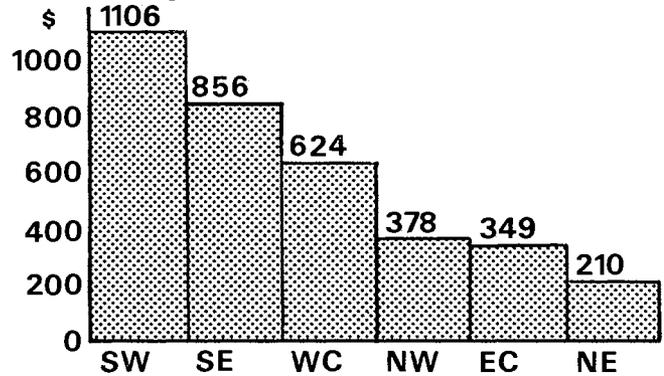


Figure 12 The top graph has been redone to be clearer and more easily read.

Minnesota Farm Land Value
est. average/acre, 1976*



Minnesota Farm Land Value
est. average/acre, 1976



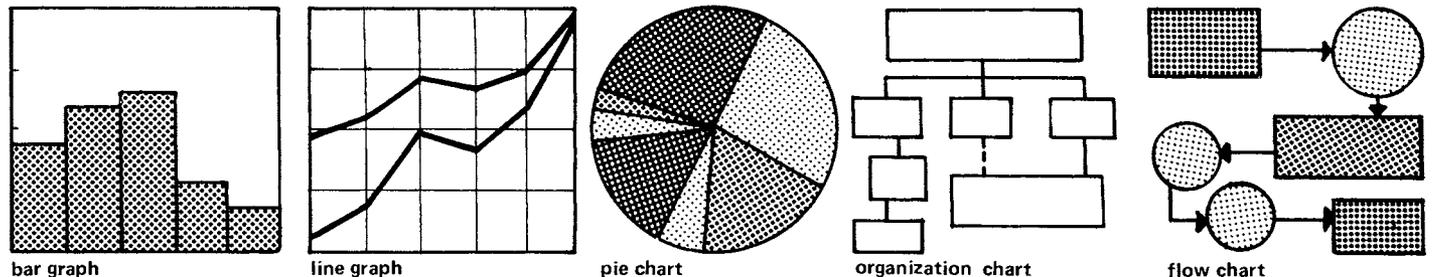
sons, trends, and frequencies, and are the easiest to understand. **Bar graphs** can be either vertical or horizontal and different colored bars can compare different things or the same thing under different conditions. **Line graphs** should have no more than 2 or 3 lines, or the comparison can become confusing. **Pie charts** are effective in showing what parts make up the whole and relative sizes. **Organizational charts** can explain structure, chain of command, and relationships. **Flow charts** present sequences of events or show a step-by-step procedure.

As with all visuals, charts need to be reduced to essential elements. If a graph is complex and tries to show or compare too many items, it should become several graphs.

Label the appropriate bars, lines, or segments rather than using a key. If exact numbers are important, label them, instead of expecting the viewer to estimate the quantity from the axis, or the percentage of the pie chart piece. Eliminate most of the numbers on the axis and limit explanatory type to a brief title. Eliminate footnotes. The speaker can fill in details and explain the various elements and draw conclusions from them (figure 12).

The structural lines of the graph (such as horizontal or vertical axes, circle of the pie chart, etc.) should be dark enough to be easily seen, but should not dominate. Lines necessary to convey content (such as the bell curve on a line

Figure 11



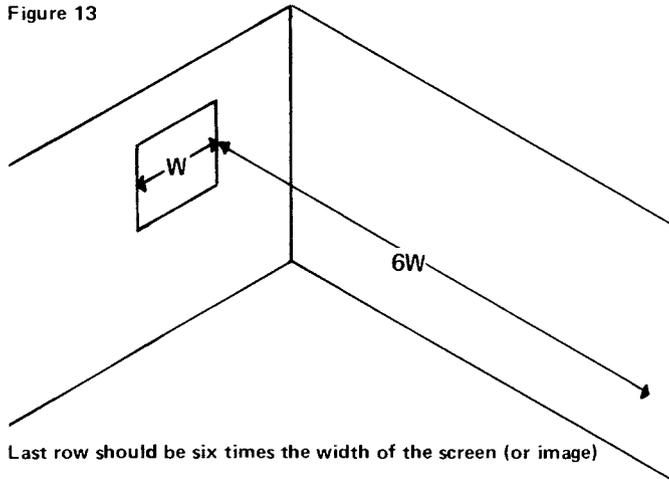
graph) should be 2 or 3 times as thick as the structural lines so that they clearly dominate. Color should be reserved for these lines, bars, pie pieces, etc. which actually convey the information and need to attract attention.

Projected visuals—rules of thumb

One advantage of projected visuals (overheads, slides, film strips, movies, or opaque projections) is that projection allows enlargement. Yet, surely, as part of an audience, you have squinted your way through a presentation, trying vainly to read the screen. Are your audiences straining to see *your* visuals?

Successful projected visuals require coordination among room size, screen size, size of image on the screen, and the relationship of type size to the overall width of the visual. However, it is not as complicated as it sounds.

Figure 13



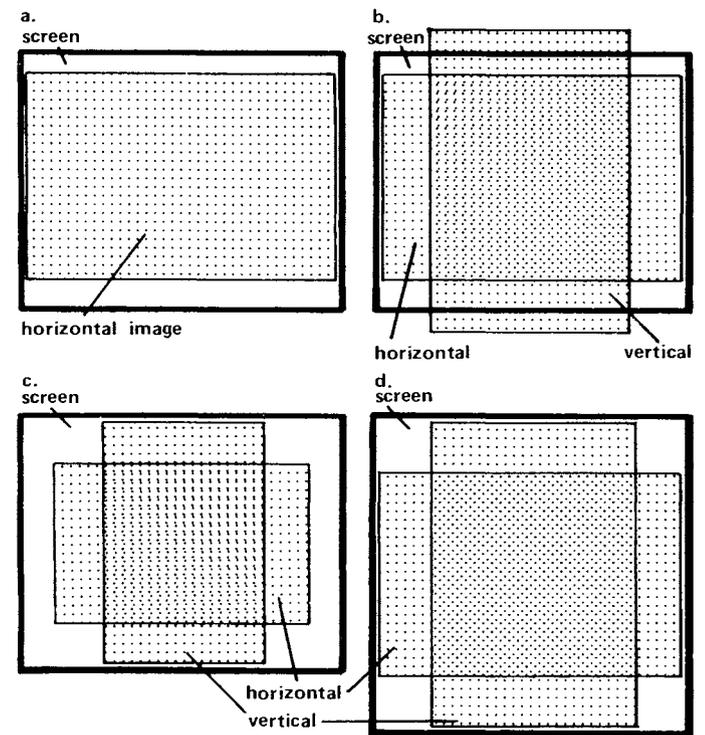
First of all, the width of the screen and the width of the horizontal image on the screen should be the same size. Always place the projector so the screen is filled completely with the visual—right up to the edges. Then, the last row of the audience should be no farther from the screen than six times the width of the screen (figure 13). In other words, if the screen is 5 feet wide and the image on the screen is 5 feet wide, no one should be viewing it from more than 30 feet away ($5 \times 6 = 30$). Most classrooms, meeting rooms, and lecture halls with permanent screens follow this screen width-to-view distance ratio, but it never hurts to double check.

Figure 14 Screen and Room Size

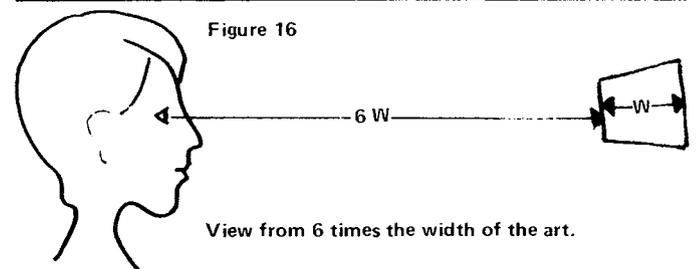
Common screen sizes (w x h)	All Horizontal Visuals		Horizontal and Vertical	
	horizontal image width	maximum audience distance	horizontal image width	maximum audience distance
4 x 4'	4'	24'	4'	24'
5 x 5'	5'	30'	5'	30'
6 x 6'	6'	36'	6'	36'
7 x 7'	7'	42'	7'	42'
8 x 6'	8'	48'	6'	36'
8 x 8'	8'	48'	8'	48'
9 x 7'	9'	54'	7'	42'
9 x 9'	9'	54'	9'	54'
10 x 8'	10'	60'	8'	48'
10 x 10'	10'	60'	10'	60'
12 x 9'	12'	72'	9'	54'
12 x 12'	12'	72'	12'	72'

Figure 14 shows some common screen sizes (column 1); the width of a *horizontal* visual that fills the screen which is the same as the screen width (column 2), and the maximum distance the viewer should be from the screen (column 3). If all your visuals are horizontal, you will make maximum use of a full horizontal screen (figure 15a). However, if some visuals are vertical, the top and bottom will fall off the screen (figure 15b) so you must decrease the image size to fit the height of the screen (figure 15c). This also decreases the horizontal image size and the maximum viewing distance (figure 14, columns 4 and 5). Some program organizers require all speakers to use only horizontal visuals to guarantee maximum visibility and so that projectors won't have to be moved between each presentation. If a square screen is used, both horizontal and vertical visuals fill the screen equally well and viewing distance remains unchanged (figure 15d).

Figure 15



Artwork (meaning any master from which a visual will be made—art, type, charts, etc.) can be checked for visibility by using the same 1:6 ratio before making the final visual. For example, if a graph is 5 inches wide, look at it 30 inches from your face and the type will be about as easy to read as from the last row of the audience (figure 16).



Slides

Test the legibility of type on your existing slides by holding the slide up to the light about 8 inches from your face (6 times the width of slide = 8 inches). If it is easily read, then the type size in relation to the artwork width/depth proportions is probably correct. If not, it is a simple matter to correct.

The transparency in a horizontal slide frame has 3 to 2 proportions, so all artwork should also have 3 to 2 proportions. This assures that art and type will be as large as possible and will make maximum use of the screen area (figure 17).

Figure 17

3

Minimum Letter Sizes for Various Viewing Distances				
viewing distance in feet				
	12½'	25'	50'	75'
letter sizes in inches	½"	1"	2"	3"

2

These proportions are about 3 to 1½ — too wide and not deep enough.

3

Minimum Letter Sizes for Various Viewing Distances				
viewing distance in feet				
	12½'	25'	50'	75'
letter sizes in inches	½"	1"	2"	3"

2

This is the same information in the correct 3 to 2 proportions. Notice how much larger the type is, even though the visual is the same width.

Type size is measured in points. Figure 18 shows some common type sizes used in preparing art for projected visuals. Ten point type is about the same as elite typewriter type, and twelve point type is approximately pica size.

Figure 19 gives some original art sizes in the first column that fit the 3 to 2 proportions and type sizes that are very readable. If type is smaller than the recommended smallest type (right column), the 6 times screen-width-viewing-distance rule of thumb is invalid.

Figure 18

10 pt.	30 pt.
12 pt.	36 pt.
18 pt.	42 pt.
24 pt.	

Figure 19

Original Art (wxd)	Headline	Copy or Subheads	Smallest type
2 x 1-3/8"	12 (pica)	10 (elite)	8 pt.
3 x 2"	18 pt.	12 (pica)	10 (elite)
4 x 2-3/4"	24 pt.	18 pt.	12 (pica)
6 x 4"	30 pt.	24 pt.	18 pt.
8 x 5-3/8"	36 pt.	30 pt.	24 pt.
10 x 6-5/8" (slides) 9 x 7" (overheads)	42 pt.	36 pt.	30 pt.

Any slide art 4 by 2-3/4 inches or smaller (figure 20) can be done with a regular typewriter and be readable if you don't use too many words (see page 3). Typewriter type is not the best quality to be enlarged on a 6-foot screen, nor is it bold enough to achieve optimum visibility, but it works in a pinch. However, any art smaller than 3 by 2 inches requires special closeup photography equipment to make the slide.

Original slide art:
2" x 1 3/8"

This is a good size for typewritten slides with no art.

Figure 20

Original slide art: 3" x 2"

- Typewritten slides readable
- Danger of using too many words
- Never put more than 50 words on one visual
- 27 words on this slide

Overheads

One suggestion for checking the legibility of an overhead is to place it on the floor at your feet and read it from a standing position. If it is difficult to read, leave it on the floor and make a new one. This is similar to the 6 times width rule, since a horizontal overhead is about 9 inches wide and should be readable from 54 inches. The last line in figure 19 shows that 30 point type (about 1/4 inch tall) should be the smallest on an overhead. This means typewriter type (if that is the only type available) needs to be typed 3-1/2 inches wide and enlarged to 250 percent of its original size, or at minimum 4-1/2 inches enlarged to 200 percent.

Although slides have 3 by 2 inch proportions, overheads are 4 by 3 inch proportions. Like slides, artwork needs to fit these proportions to make maximum use of the full screen.

The presentation

That date you marked on your calendar so long ago will arrive before you know it. Be sure to reserve any equipment as soon as you know your facilities and what you will need. Don't assume equipment will just be available, even something as simple as a chalkboard or screen. Check. Find out if you'll be setting up and/or running equipment, or if an AV technician (whom you will need to supply with a well-marked script to follow) will take care of those details.

Evaluate the room you'll be using for potential problems. Some things to check follow:

- whether the room is too long (or the back row seats are too far back) for the size of the visual or screen;
- whether the room is so wide that people sitting on either side will have trouble seeing the visuals;
- whether the ceiling is too low relative to the size of the room: for example, you determine you need a 9 by 9 foot screen because the last row is 54 feet back—however, the room only has 9 foot ceilings so the screen cannot be raised above the heads of the audience;
- whether the room can be totally darkened—if not, projected visuals, except overheads, cannot be used;
- whether the projector is permanently installed where it does not project an image maximizing the screen size, or proportional to the room size;
- whether rear projection for slides or film strips or a movie is used, it may be impossible to enlarge the image as much as needed. Rear projection also often has problems with brightness of image, cutting down on vividness and clarity in even a pitch-black room;
- whether acoustics are adequate for the room size or will you need a microphone.

Practice your presentation actually using your visuals and the equipment. Then, try it out on a few people, representative of your audience. Revise any portions of the talk or visuals that were unclear to them. This is an important step that can make the critical difference in the understanding of your material. You know the subject so well yourself, it takes someone less familiar with it to spot the gaps.

If you're involved in setting up before the presentation, double check screen placement and size, horizontal and vertical image size, and viewing distance and type size for projected visuals, and lettering size for nonprojected visuals with words.

If using overheads, be sure to adjust the screen to eliminate keystoneing, which distorts the image and occurs when the pro-

jector projects up to a screen (figure 21a). It can be corrected by tilting the screen so that the bottom is farther from the projector than the top. In other words the light should hit the screen at a 90° angle (figure 21b) to prevent keystoneing.

During the presentation:

- Look at the audience, not the visual.
- Don't repeat what the visual shows, add to it.
- Give the audience a chance to look and absorb each visual before talking about it. It is hard to read one thing and hear other verbal messages at the same time.
- Pace your visuals—don't go through them so fast they can't be comprehended, nor should you leave one visual up so long that it begins to distract.
- If the same visual is referred to several times throughout the talk, make duplicates and insert them where needed, rather than backing up or flipping through the previous visuals to find the one you want.
- When using projected visuals, don't blind the audience with the projector light shining on a blank screen. Know which is the last visual and shut off the projector first. One easy way to cue yourself is by adding a visual that simply says, Questions, at the end of the presentation, or each subsection. This lets you and the audience know it's the last visual and time to entertain questions. When using overheads, overlap them only for a split second, not removing one visual until after the next one is in place. This eliminates the annoying bright flash between each overhead.

Humor and humorous visuals have their place in a presentation. They attract attention, add life to dry material, and can provide a waker-upper or change of pace. Humor in the form of exaggeration (often accomplished through artwork) can emphasize a point and etch it in the memory.

However, don't overdo it. The audience can lose track of your point if it is buried in jokes. Too much humor can also damage your credibility. Be sensitive to your audience; they may find your humor degrading to an ethnic group, race, sex, or religion.

Evaluation

If you evaluate your presentation, or an evaluation is made of the entire program, be sure to include a question or room for comments about your visuals or the method of presentation as well as the content. If your visuals were prepared by AV specialists, pass this feedback on to them.

You will learn if your early analysis of the audience and your content were accurate and if your choice of methods, including visuals, was appropriate.

With this feedback, revise in any way necessary to improve the next presentation. Never use those same visuals again exactly as used this time. Determine their appropriateness for each new situation or audience. Go back to the original questions (see page 1) with every use, and review the advantages and disadvantages of your visuals vs. other kinds (pages 1-3) whenever you need to speak or teach. This constant review and revision is what makes the difference between a speaker with lively, up-to-date, appropriate visuals and one who tries to make do with the same old material, no matter how inappropriate, for every audience and situation.

If you do this constant review your audience will appreciate and remember you and what you had to say.

Figure 21

