This handbook, a revision of a 1960 publication, stresses a systematic approach to the actual planning process and the utilization of basic principles of composition in designing visually effective displays. A list of five personal responsibilities the teacher should assume is given, 12 instructional uses are described, and four common limitations of bulletin boards are discussed. Content and purpose, selection of resources and materials, and possible sources of free materials are discussed with respect to planning a display. Various aspects of design, including elements and principles of design, design tips, and arranging the design, are provided with a 6-point checklist and a sample analysis. Techniques for constructing the display—i.e., the creation of lettering, materials and picture selection, mounting visuals, and attaching materials to the board—are described. Questions are given to use in evaluating the content and the design of the display to determine its effectiveness in terms of the learning objectives and the design. Line drawings illustrate the text, and a list of 16 other sources of information is provided. (CHC)
BETTER BULLETIN BOARDS

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TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."
Preface

This handbook replaces "Better Bulletin Boards", which was written in 1960 by J. Preston Lockridge and illustrated by Gerda G. McMurry. In this revised edition, the author stresses two important aspects of planning a bulletin board. First, is a systematic approach to the actual planning process. Second, is the utilization of basic principles of composition in designing visually effective displays. Both aspects are important in organizing and evaluating the display.

In addition to identifying the various instructional uses of a bulletin board display, the author discusses the selection of materials and pictures; lettering, illustrating, and mounting techniques; and methods for designing three-dimensional displays. Readers will also find a list of sources of information on better bulletin board displays.
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Bulletin Board Displays

Introduction

One of the most common forms of media found in the classroom is the bulletin board display. This resource is not only used to make the classroom more attractive, but if designed carefully, it can serve as an enriching learning experience. Both the teacher and the student should become actively involved in the planning and construction of bulletin boards. Teachers can serve as facilitators by providing students with topics and materials. Students can organize and construct the design. All those involved will be able to utilize their intellectual judgment and their artistic ability.
Teacher Responsibility

Although students may be actively involved in collecting, arranging, and constructing materials for the display, the teacher has major responsibilities. The teacher is the initiator of the act for she or he decides what topic will be best presented through the use of the bulletin board. The teacher will determine what instructional objectives are to be met. Finally, the teacher will guide the students through their efforts to research, organize, and construct the display. At times the teacher may find it beneficial to take sole responsibility for designing the display, for example, when limited time is a factor or when the display will introduce a unit of study. The following is a list of personal responsibilities the teacher should assume:

- Be able to demonstrate competence in the systematic planning and production skills involved in making a display.
- Be aware of the various instructional uses of a bulletin board display.
- Be able to evaluate the effectiveness of a display in terms of the content and the design.
- Be able to provide adequate materials, equipment, and supplies for lettering, mounting, and illustrating materials needed for the display.
- Be able to maintain a picture file and be aware of possible resources of visuals and information which can be used in designing bulletin board displays.
Instructional Uses

Bulletin boards can serve a variety of instructional uses:

- Displays are often used to stimulate student interest in new materials. Introducing new books which have recently come into a library or presenting visuals to introduce a new unit are examples of displays designed to arouse student curiosity.

- Displays can facilitate the use of one of a kind or single copy items. This provides students with equal access to materials.

- Displays can also serve as a review for students. Upon completion of a unit, student pictures, projects, and reports accomplished during their studies can be displayed on the bulletin board. Items which represent the key concepts taught in the unit will serve as a good review.

- Displays serve as a method for visualizing the content being studied. The pictures presented can bring the outside world into the classroom by providing students with visual representations of objects and people which would not be available to them because of time, size, or location constraints. The visualization is helpful in making abstract concepts more concrete.

- Displays can serve an aesthetic purpose. Teachers can make their classroom environments much more appealing to students. It indicates to the students that the teacher cares about their working environment by providing a warm and inviting place to learn.

- Displays can be time-saving devices by providing the teacher an opportunity to display material that is important, but which cannot be studied because of time constraints.

- Displays can be used as a communication device where students learn about school and community events. Although this may not be the most imaginative utilization of a bulletin board, it can save class time by displaying announcements.
Displays can serve as a motivating learning experience when students are given the opportunity to do the work. The experience can help students exercise their creativity and develop visual skills. By carrying out the research and by organizing information, students will also learn content. In addition to the academic rewards, designing a display can have personal rewards as well. As students direct their efforts toward the final goal, they learn responsibility and pride in their work. If they work in groups, students learn cooperation. Active participation on the part of students in display design is an effective teaching strategy which teachers should not ignore.
Limitations

Most of the limitations associated with the use of bulletin board displays are a function of teacher attitude, not the medium. Whatever the constraints, they usually can be overcome with a little ingenuity. Some common limitations include:

- **Lack of Flexibility.** Using bulletin boards solely for announcements is a limiting factor. A small announcement bulletin board near the classroom door is useful, however, there are better uses.

- **Lack of A Suitable Surface.** Many old school buildings do not have cork bulletin boards, however, there are many materials which can be used to construct display boards. Masonite, peg board, or composition board can be used.

- **Limitations of the Medium.** The major physical constraint of a bulletin board is the fact that it is a two-dimensional surface. It cannot display three-dimensional objects easily. There are other display materials such as peg board or hook and loop boards which can be used instead. Another solution is to combine the display with a table surface.

- **Lack of Teacher Understanding.** Teachers often complain that they do not have the time or the skills to design displays. It does take time to carefully plan a display, but if teachers would integrate display making as part of their instructional activities for students, the time would be well spent. The skills required to letter and design the display are easy to achieve. There are numerous information sources on bulletin design skills; some are provided at the end of this book:
Planning a display so that it effectively communicates the intended message takes time. However, by following a systematic approach to planning, the process will be simpler and will ensure that students will benefit. A systems approach involves several stages:

- Determination of Content and Purpose
- Selection of Materials and Resources
- Design of the Display
- Construction of the Display
- Evaluation of the Display
Content and Purpose

A teacher must first determine what the topic will be and what will be the major purpose of the display. This action involves several steps:

- **Determination of Content**: What area of study is best suited to the use of a display? It must be a topic where the combination of verbal and visual materials are important to the understanding of the content.

- **Determination of Learning Objectives**: What will the learners be expected to do after they view the display? Will the display change an attitude, teach a procedure, or teach factual information? Student attainment of the learning objectives serves as one measurement as to the effectiveness of the display.

- **Identification of Audience**: Who will be viewing the display and what are their learning characteristics? This will help determine what visuals and vocabulary to use. A display which is designed to be beyond or below its viewer's abilities is useless.

- **Determination of Suitability of Medium**: Before beginning the next phase, determine if a bulletin board display is really the best way to present the information.
Selection of Resources

In the next stage, the teacher needs to determine what display resources are available. Usually, there are several types of display facilities available for teachers to use, such as boards in the classroom, library, entrance hall display cases, and corridor walls. The type of display area selected is based on the teacher's purpose and target audience. Where the display is located will also have an impact on its design. For example, a corridor is a busy place, so any materials placed on display must convey their message at a glance of the viewer's eye.

Selection of Materials

With the learning objectives in mind, the teacher can begin to generate ideas for the types of materials and pictures which would help convey the message. Realia such as flowers, insects, and souvenirs collected by both students and teachers can add visual interest to a display. The teacher and students can produce materials such as charts, graphs, illustrations, and models. There are also numerous commercially prepared materials ranging from brochures to posters.
Sources

Sources for display materials are numerous and many are free for the asking. A teacher should establish a picture file to facilitate bulletin board construction. Possible sources of free material include:

- Local service and community organizations: chamber of commerce, fire and police department, community health services, historical societies and public service organizations.

- Government agencies: state departments of tourism, conservation, agriculture, etc. and Secretary of State; federal departments of education, health, park and recreation services, agriculture, etc.

- Museums: both local, state and national

- Travel agencies and airline companies

- Trade and industry organizations and professional organizations: National Dairy Association, American Dental Association, etc.
Designing the Display

To be effective a display must do several things. First, it must attract the viewer's attention. Second, it must focus the viewer's attention on the important facts illustrated in the display. Finally, the design must hold the viewer's attention long enough for the viewer to receive the intended message. This may seem to be a difficult task, however, if one is aware of the principles used in design, the task is simplified. The principles that serve as basic guidelines include balance, contrast, emphasis, unity, movement, simplicity, and harmony.
Elements

The principles of design are achieved by manipulating the elements of design. The elements are the tools or objects used to arrange the area within a composition. These elements include the following:

- **Line** is one-dimensional, it has the characteristics of thickness or thinness and direction (horizontal, vertical, diagonal).

- **Space** is usually thought of in terms of positive and negative space. Positive space is the used area of the composition and negative space is the unused area.

- **Shape** is two-dimensional; it has height and width.

- **Form** is three-dimensional; it has height, width, and depth.

- **Value** is the lightness or darkness of an object and usually refers to the shades of grey between the values of white and black.

- **Color** is the hue of an object.

- **Texture** is the roughness or smoothness of an object.

![Fraction Tutorials](image)
Principles of Design

Balance

Balance involves the arrangement of visual weights so that there is a feeling of equilibrium between two sides of a design when divided in half. Formal balance occurs when the visual weights are identical or symmetrical. Informal balance occurs when objects of differing weights are used, for example, a large object can be balanced by placing two smaller objects on the other side. Both positive and negative-space are considered when trying to achieve balance.

Contrast

Contrast refers to the design characteristics which cause an object to stand out or to be separated from the background. It can be achieved through contrasting size, shape, color, texture, and value.
**Simplicity**

The simplicity or complexity of a design is determined by the number of elements used in the composition. The age and intellectual level of the viewer can determine the simplicity of a design. A complex design is not bad, as long as the elements do not interfere with the intended message.

**Emphasis**

The principle of emphasis is operating when important parts of a design are highlighted. Emphasis can be achieved through the use of arrows, large shapes, bright colors, and contrast.
Unity

The principle of unity is achieved by arranging and selecting objects which make the composition work together as a unit. Thematic unity occurs when a design is built around a theme. Physical unity occurs when the elements are tied together through the use of line, overlapping, repetition, and placement of objects on a common background.

Harmony

Harmony occurs when all the elements of a design go well together. There is no discord in the display. Color and shape are the elements used most often to create harmony.
Movement

Movement refers to the pattern followed by the viewer's eye when scanning the design. Movement can be created through the use of rhythmic lines and shapes, use of numbers, and placement of bright colors throughout the display. Common methods of arranging eye movement is to place materials left to right, top to bottom. Variations on letter patterns such as N, S, T, and Z are also ways of creating eye movement.
Design Tips

- Use bold captions which involve the viewer, like asking a question.

- Place a border around the display to focus the viewer's attention on the design.

- Use manipulative or three-dimensional devices.

- Pay attention to eye movement; the viewer's eye should be led through the display so that the parts are viewed in a logical sequence.
Group related objects together since this will help the viewer to discriminate between similarities and differences. It also indicates relationships.

- Bright colors or large centers of interest such as a cartoon character attract attention and can emphasize key items.

- Use repetition of color, shape, and texture to create unity.

- Use redundancy by including both pictorial and verbal descriptions of the idea. Or present the information by allowing students to use several sensory modalities: sight, sound, touch.
- Position figures or characters facing into the design so that they guide the viewer's eye from one material to another.

- Keep the design and illustrations as simple as possible without jeopardizing the intended message. Too much detail or complexity can confuse the viewer.

- Use cueing devices such as bright colors, arrows, and underlining to clarify information. Make sure these are appropriately placed.

- Use no more than three colors as a color scheme. Too many colors can be overwhelming for the viewer.
Arranging the Design

One of the best ways to plan a design is to use thumbnail sketches. These represent rough layouts of the display done to scale. Make several, using colored pencils or markers. Consider where the visuals and lettering should be placed, then analyze the design in terms of the principles used. To get ideas for possible layouts, look at magazines because their layouts are done by design specialists.

Once the design is decided upon, pre-arrange the material on a table or on the floor. There is still time to add or eliminate materials before they are permanently put in place. Remember to analyze the design in terms of the principles of balance, contrast, simplicity, emphasis, unity, harmony, and movement. The following checklist will aid in the analysis.

- Use three-dimensional elements to create visual interest. It is easy to create a three-dimensional display using cut mat board and tape as a hinge.
Design Check-List

1. Is the design simple without jeopardizing important components?
2. Is the design balanced? __Informal __Formal.
3. Is the central theme emphasized? __Are key items or ideas emphasized? In what way?
   ___Shape ___Size ___Color ___Arrows ___Placement
4. Does the design have unity? __Thematic ___Physical
   Was unity created through ___Repetition ___Overlapping ___Borders
5. Is there sufficient contrast? What elements are manipulated to create contrast?
   ___Shape ___Line ___Color ___Value ___Texture ___Form
6. Is the design harmonious? What elements have been used to create harmony?
   ___Color ___Shape

Example Analysis

This simple design is informally balanced. Key items are emphasized by the use of a large figure pointing to the central idea of the display: "Simple Machines." Unity is created physically by the repetition of rectangular shapes, by the use of a line enclosing the shapes, and by the overlapping of the lion's paw over the enclosing line. Contrast is created by the use of different values. The design is harmonious because there is no discord in the display.
Constructing the Display

Constructing the display involves the creation of lettering, materials and picture selection, mounting visuals and attaching materials to the board.

Lettering

The verbal elements used in a bulletin board display are an integral part of the design. Therefore, careful selection and execution of captions and titles are important. Illegible lettering and awkward word combinations cannot only destroy a well designed display, but may actually interfere with the learning potential of the display. The lettering style selected should contribute to the unity of the display and above all be legible.
Legibility

The factors which determine whether or not a word can be read include:

- **Size:** Large bold letters attract attention and are useful for titles and captions. Letter size should decrease in accordance with the decreased importance of the verbal message.

- **Style:** Select a style which is compatible with the overall theme of the display. Gothic letters which are uniform in thickness are appropriate for textual information. Decorative letters are good for titles and captions. To assure legibility be careful to select decorative letters which are not extreme departures from the basic letter forms. Also, avoid using too many styles on one display.

- **Contrast:** There should be sufficient contrast between the letter color and the background upon which it is placed, for example, white letters on a dark blue background are easy to read. If there is insufficient contrast, the letters will be difficult to read.

- **Spacing:** Spacing between letters should be done optically. This occurs when a letter is placed next to another based on a balance between the visual weights of each letter. Spacing between words is important also. Words must be spaced so they read separately as words, but without being so far apart that they do not make a sentence. Spacing between lines of text must be far enough apart to make room for ascending and descending letters.
Captions

Captions should be brief and limited to key words or phrases. Words or vocabulary should reflect the subject matter and the intended audience. Questions are useful in involving the audience. Forceful, clear and direct statements have more impact than long sentences. Remember that the captions are not only informational, they are a visual element as well, so play with a variety of letter styles.
Lettering Techniques

There are three categories of lettering techniques available to the teacher: hand lettering, mechanical lettering, and commercial lettering. Each category has its advantages and disadvantages. Most require some skill on the part of the teacher.

Hand Lettering: This method requires some skill. The process can be time consuming, but this type of lettering is creative and inexpensive. A variety of hand-made procedures are illustrated. Speedball pens, felt tips, and brushes are common hand lettering tools.
Mechanical Lettering: This method requires a writing implement and a letter guide of some sort. Mechanical letters are uniform in size and can be relatively professional in appearance. After the initial investment of pens and guides, there is little expense attached to this method. Types of mechanical lettering devices include: stencils, rubber stamps, template and scriber, and steel brush and guide.

Commercial Lettering: For the teacher who has little time and who does not mind the expense, commercial lettering is the answer. These are pre-made letters which are purchased from art and school supply stores. Commercial lettering types include: three-dimensional letters made from cork, plastic, or ceramic tile; vinyl letters that have an adhesive back, paper gummed back letters that become sticky when wet; and wax dry transfer letters that can be transferred to paper by rubbing. All of these types come in a variety of sizes, colors, styles and prices.
Picture and Materials Selection

Pictures

Pictures used on bulletin boards not only help to stimulate student interest, but pictures also help students remember verbal information. Simple line drawings which eliminate extraneous detail can be more effective at conveying information than realistic photographs. Color can add interest, but it can also interfere with important concepts if it is not relevant. Thus, pictures must be selected with the learning objective in mind.

Teachers and students can produce their own visual materials by using several simple techniques. If it is desirable to enlarge an image, an opaque projector can be used. Any projector will enlarge so it is also possible to project and trace slides and overhead transparencies. Tracing paper is useful when the image does not need to be enlarged or reduced.

Materials

Background materials used on bulletin boards are numerous. The possibilities include: cork, corrugated cardboard, colored paper, maps, carpet, crepe paper, burlap, fabric, wallpaper, fish net, etc. A teacher is only limited by his or her imagination when it comes to selecting backgrounds.

Mat board can be used to create three-dimensional displays. It comes in a variety of textures and colors. Mat board is easily cut with a utility knife, thus, it is possible to create a variety of shapes. Even easels can be made to help hold up the display.
Mounting Materials

It is a good idea to mount pictures or other flat materials on some type of mounting board. Mounting boards protect the materials and serve as frames for the pictures. Mounted pictures are also easier to view, handle, and file. Pictures mounted on colored backgrounds using unusual shapes and textures help make displays more attractive.

In selecting colors, choose a background color which causes the picture to stand out. This can be done by playing on a color highlighted in the picture, or by using a color which is within the same color range. When using a group of pictures together, select a color which looks good with all the pictures. This will help create unity. Materials which can be used for mounting include: illustration board, mat board, cardboard, poster and rail board.

Permanent versus Temporary Mounts

One may choose between permanent and temporary mounting techniques. If a teacher wants the flexibility to reorganize pictures, then a temporary mounting technique may be useful. Materials which can be used in temporary mounting include: rubber cement, paste, masking tape, cellulose tape, staples, and glue stick. These are easy to use, inexpensive and readily available at art and school supply stores.
Permanent Mounting Techniques

Rubber cement:

1. Cover the back of the picture and the area of the mount board where the picture will be placed with rubber cement.

2. When the rubber cement is dry, carefully position the picture over the mount board. Touch the top of the picture to the top of the rubber cement on the mount board and gently lay the picture down. Smooth from the top down.

3. Any excess rubber cement can be removed with a hardened ball of rubber cement.
Dry Mounting

1. Dry mounting tissue is a heat sensitive adhesive that can be used to make permanent mounts. Cut the tissue larger than the untrimmed visual and tack the tissue to the back of the visual with an iron (set on rayon or low).

2. Trim both the tissue and the visual.

3. Position the visual on the mount board. Place a piece of protective paper over the edge of the visual and tack the visual to the board.
4. Place the protective paper over the entire visual and run the iron over the surface. Stroke slowly, moving the iron from the center of the visual to the edge until the visual has adhered to the board.

5. Place the mounted visual under some heavy objects until cool.

**Attaching Materials**

A great variety of devices are available for attaching materials to the display. The teacher should keep in mind that whatever is used should not detract from the display and should not destroy the bulletin board surface. The following is a list of possible materials:

- Straight or common pins
- Cellulose and masking tape (some are double coated)
- Tacks (for heavier materials)
- Staples and T pins
- "Stick tack," a material which is sticky on both sides.
- Bulletin board wax
- "Velcro" which is a hook and loop material
Evaluation

Evaluation is an important stage in the systematic planning of a bulletin board display. Now is the time to determine the effectiveness of the display in terms of the learning objectives and the design. The entire class can be involved in the evaluation. Students can be tested for knowledge gained or they can be asked to critique the display.

Evaluation of Content

Does the display

- motivate action, or stimulate curiosity?
- use material which is accurate, relevant and up-to-date?
- eliminate unnecessary detail?
- present well organized information which is not only clear and simple, but supportive of the learning objectives?

Evaluation of the Design

Does the display

- attract, hold, and focus attention?
- manipulate the elements and principles of design to create an aesthetically pleasing effect?
- have verbal materials which support the visual statements?
- have legible lettering?
Sources of Information

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