The purpose of the paper is to hopefully provide direction and understanding for young teachers who are inexperienced, who have not been exposed to good role models or those who are victims of ineffective or poorly prepared teaching. I am convinced that with the right goals and constant effort, it is possible for a poorly prepared teacher to develop into an effective teacher.

I was fortunate in my graduate studies to have exemplary role models and to be exposed to effective teaching. When I graduated, I knew what my objectives were but did not have a clue as to how to reach those goals. It is similar to giving directions and pointing out a landmark and saying, “Do you see that big tree over there? I can’t tell you how to get there, but that is where you want to go.” If young teachers have the right goals, and never cease to achieve them, they have a good chance of eventually reaching them.

**Introductory Studies in Art and Design**

Foundations or Core Programs usually refer to introductory courses for students from crafts, photography, fine arts and design. They generally are a combination of courses including drawing, color, design and art history. Because of the spectrum of programs, there is a corresponding increase in enrollment. At most state universities, there might be as many as ten to fifteen sections for each class. Most of these classes will be taught by graduate students.

Basic Design is more often associated with the Sophomore year in graphic or industrial design. The course is taught by one or two full-time instructors, class sizes are generally restricted, and only majors are permitted to enroll.

Design falls into two categories – theoretical and applied. Basic design is theoretical and directed toward developing perceptual awareness. Theoretical design is taught through exercises that are without solutions, only options. Exploration of options is the foundation for basic design. Images are abstract, based on visual judgments and objectives are internal to the work itself. The process is of greater significance than the product.

Applied design is professional practice, it is functional, user-oriented and concepts become a significant factor at this level. Applied design has external objectives, values, content, and function. Applied design is product based.

My understanding of nomenclature for Basic Design is that there are three broad Primaries – color, form and space. Each of these can be expressed through Elements such as point, line, shape, pattern, texture, plane, value, etc. Interaction, manipulation and activation of the elements is guided by a series of Principles. These apply to interval, scale, tension, rhythm, figure ground, dynamics or contrast, etc. Principles are used in the abstract and they become the platform for individual exploration. The same principles apply to color, form or space, and most have several interpretations. The great advantage of theoretical education is that it prepares students for the unknown as it pertains to new technologies, i.e. computers, shifting social values, or other changes. User-based education tends to limit graduates to existing demands and conditions. When individuals recognize, understand and apply the principles, they are referred to as being visually sensitive or visually literate. The principles are often identified as visual, or formal values or fundamentals. To see or seeing refers to both in the optical sense and also as meaning to comprehend.
Styles of art and design are in a constant state of flux, some times returning to the past, and other times moving into novel modes of expression. Often change is triggered by new tools or materials. Sometimes it is the works of an individual that are emulated by others creating a style. Shifting societal values and events often influence imagery. New technology can shape styles. However, no matter how much or why styles change, the underlying visual fundamentals or principles remain constant. Therefore, it is the responsibility for visual educators to teach fundamentals and not styles.

Art and design must reflect or challenge society to remain relevant. This creates a process of ongoing reaction resulting in change with constantly shifting definitions and values. My premise is that skills and visual principles remain constant because they are the means rather than an end. Skill and visual principles are applicable regardless of concept or style.

Visual education begins with learning basic principles and developing eye and hand skills which are then applied to interpreting styles or expressing concepts. To effectively educate students requires appropriate instruction in visual principles, standards and discipline. The same tenets applied to traditional media such as graphite, paint, clay, or ink are equally germane to computers, light or video. Understanding of form, shape, line, space and color are essential to all visual expression. With these tools, students can embrace new concepts, technology, materials or styles with confidence.

My experience is that visual principles are best taught within a context which is abstract, theoretical, sequential and within strict limitations defining objectives, criteria, materials and format. It is requisite to emphasize development of hand skills and train the eyes in conjunction with exercises as these are germane to expressing concepts through use of the principles.

A major fault in visual education lies with teachers who attempt to move students from the beginning to the practice too quickly. This results in improper or no preparation, and it is without that arduous transitional learning experience that falls between the beginning and professional practice. When the educational preparation for music or dance are examined, it becomes clear what is lacking in visual education. Young musicians and dancers spend endless hours doing exercises while moving from the simple to the complex. Music students learn and practice the scale, do innumerable exercises, develop manual dexterity and train the ear to nuances of sound. Skills are acknowledged and carefully nurtured. It is difficult to understand why more teachers do not recognize the need for comparable preparation for artists and designers.

It is reputed a wise man once said that anything worth knowing cannot be taught. During my student days, a professor talking to us about education pointed out that there are things to be learned where there are no courses. He used virtue as an example. There are no classes in virtue, but it may be acquired by studying other subjects. Visual education is not so much taught as it is learned. Teachers define exercises with appropriate objectives, criteria and limitations where students learn through discovery, refinements and the experience of doing.

The effectiveness of the teacher is determined by an ability to devise assignments, usually in the form of sequential exercises, where students learn for themselves. It is a experiential learning process leading to understanding. The teacher must have capabilities to guide students, identify and explain, provide criteria, evaluate work, make comments and demands that expand the learning experience.
Theory and Practice

To my knowledge, separating theoretical from practical studies as a separate program began at the Bauhaus. The Bauhaus introduced new concepts in visual education with courses and teachers representing a mixture of painting, theater, crafts, sculpture, design and architecture. Therefore, it was necessary to devise introductory courses that would be relevant to each and every discipline. The Bauhaus basic design program served as the model for foundation programs at most American schools. However, it is doubtful whether many American teachers ever understood the pedagogical objectives and practices of the Bauhaus. They borrowed problems, terminology and methodology without adapting them to educational conditions in this country. Many American teachers learned about the Bauhaus program from books without first-hand experience in doing the exercises, or observing instructional practices by individuals who understood the pedagogy.

I think difficulties still exist because American teachers, using art and design books, are inclined to borrow images and terminology without understanding processes or criteria involved with the imagery. The most detrimental aspect of this practice is the inability to make proper critical evaluation of student work. The teachers themselves seldom have the capability to separate content from form or to see visual nuances. Some teachers might have to educate themselves before they can educate students.

The Bauhaus basic design program served as the model for foundation programs at most American schools.

The relationship of conceptual to perceptual development in visual education is yet another area of confusion. Recent movements in Fine Arts favor concept over tradition. Design has always been influenced by advertising which generally assigns greater credence to concepts than to visual criteria. In educating artists or designers, instruction in theoretical visual studies should precede focus on content. In practice, there has to be balance between conceptual and formal values, because one without the other invariably leads to transitory or vacuous visual statements.

In recent years, there has been a decided shift in visual arts entry level courses away from earlier theoretical exercises toward professional, expressionistic, conceptual or content-related problems. My experience has been that having students do a theoretical application in conjunction with the theoretical exercise promotes better understanding of how to bridge the gap between theory and practice.

The Bauhaus basic design program served as the model for foundation programs at most American schools.
Albers divided the subject of Color into increments, with each represented by one or several exercises. Once the principles and criteria were established through doing exercises, Albers then assigned free studies. Students set their own objectives and formats and applied the principles they had learned.

I believe all the necessary clues to successful instruction in basic design are contained within Albers’ approach to teaching color: dividing the exercise into related increments with limited objectives and materials; having clear criteria and one exercise reinforcing the next, incorporating an extensive process of exploration or decision-making. It is mandatory to work abstractly so as to better focus on space and form. All of these conditions and requirements can be applied to other facets of design, theoretical or practical.

I believe first year education should be restricted to hand generated imagery. My experience is that values and skills are more readily assimilated through traditional practices than doing class assignments on the computer. An exception might be a technical course where students learn the computer and explore its range of capabilities. Hand-generated letterforms are taught the first year, and my inclination would be to introduce the computer to students for production purposes with typography in the second year.

Basic Studies in Graphic Design

Although in recent years the computer has become a primary tool within Graphic Design education and professional practice, I believe first-year education should be restricted to hand-generated imagery. My experience is that values and skills are more readily assimilated through traditional practices than doing class assignments on the computer. An exception might be a technical course where students learn the computer and explore its range of capabilities. Hand-generated letterforms are taught the first year, and my inclination would be to introduce the computer to students for production purposes with typography in the second year.

Education for Graphic Design students is divided into several broad areas which should be properly sequenced to include perceptual studies, conceptual development and professional practices. The latter should include technical information related to production processes and equipment. There is also an important part of professionalism associated with the use of tools and craft, and that which sharpens the eye and develops skills.

Because of weak Art foundation courses, most Graphic Design programs are forced to use the first year in the major to provide students with a design foundation. This takes away precious time from professional studies, but it is necessary. There are a few design programs that enroll students in the first year. Because of the poor quality of most foundation programs, this option is desirable and justifiable for most Graphic Design programs.

The majority of students come into Graphic Design believing they will be doing posters, identity marks and advertising. Theoretical studies tend to be a shocking experience for students. Because they do not understand abstract theory or critical criteria, they seldom know what they are trying to achieve. This is evidenced when students come to the teacher and say, “Is this what you want?” They resent having to do work over and over again. They feel teachers are being unnecessarily picky about skills and craft, and students are highly vulnerable to becoming frustrated in these circumstances.

I believe first year education should be restricted to hand generated imagery

Pedagogy
I have never attempted to teach or systematically inventory all design principles or learn every term. I selected those which were understood by me, that I could comfortably work with, and could explain to students. In working with other teachers, it was apparent that sometimes we had different terms for the same principle; or other faculty worked with design principles which were unfamiliar to me. Most teachers will select theoretical principles according to their interests and objectives, and this is the way it should be. The most important consideration is that teachers be able to explain what they teach, and to effectively evaluate student work.

Tension, figure-ground or space-activation, proportion, form or illusion of form, dynamics of scale, opposition or contrast, shape, space, symmetrical or asymmetrical balance, interval or rhythm, interrupted pattern and interaction of color or relationship of elements have been some of my choices at the introductory level.

A few principles have more than one definition, so it is important to expose students to the different interpretations. Tension can describe several different design relationships. Figure-ground is tension created by amounts of positive and negative areas with the illusion enhanced through contours. Color vibration is tension established by opposing hues of equal intensity and value; tension can be established by the relationship of elements. For example, two squares next to one another appear as one shape; move the squares apart until the eye identifies them as two shapes, and then reduce the space between the squares to that precise point where the eye cannot determine whether they are one or two shapes. This is another form of tension. Within the linear mode we also identify line tension as describing a quality of line. Or as an elderly painter at the Minneapolis School of Art once told Graphic Design students, “Tension is that very important something between two points where there is nothing.”

Space or spatial relationships can be defined by overlapping planes, use of scale, placement of elements and progressively increasing or decreasing intervals. Perspective is another means for creating the illusion of space. Color or shades of black and white establish space through values with hard edges advancing and soft edges receding.

Figure-ground is yet another example. Any form of visual ambiguity holds the eye, and for this reason, it is exploited by graphic designers. It is a factor in the design of symbols, letterforms and typefaces. A white shape on or intruding into a positive one; is the negative shape a hole in the positive shape or a shape in front of it? Does the intrusion appear to be behind or in front of the positive shape? What happens to the space between shapes? Negative areas require the same attention as the figure.

Activation of negative space is an extension of figure ground and it is equally important for students to understand. An example would be art or design where implied forms dominate constructed ones; activating the picture plane with a minimum of image. Students should be able to incorporate negative space into their work creating spatial planes, sometimes in front, in the middle or behind. It is often difficult for students to see spatial definition; they tend to identify only surface configurations. I find it disturbing when the picture plane serves as a platter or mat to hold or contain the design or artwork.

I have amplified on two principles, but all of them incorporate the same possibilities for extension into a number of exercises. However, there might be objectives other than design principles. Some exercises might be conceived as a demonstration for students. Students might better understand a concept through doing it rather than only having it explained. Other demands might be refinement problems where students are put into the position of having to make many visual decisions. It is only necessary that the teacher know the objectives and be able to convey them to students.

**Tension** is that very important *something* between two points where there is *nothing*.

**Pedagogy**
I normally end the course by assigning a project that either requires students to integrate everything they have learned into one project, or one that deals with application of theory and new learning experiences. Concepts become a factor in the final problem and emphasis is on the application of theory to concept. In the first instance, the project is usually some form of composition based on a given theme.

The second is a shape study based on animals, birds, fish, reptiles or insects. Contour, spatial definition and interpretation of form are major concerns. I require thorough research prior to designing, and the drawings with notes are required in a progress book. At this level, the most important aspect of research is teaching students how to use found visual materials as a source for information and not as something to copy. I make research requirements wherever possible as it is one of the very best avenues for self-learning.

In conjunction with theoretical exercises, it is requisite for students to achieve hand and eye skills. In recent years, faculty attitudes too often have been that emphasis on skill detracts from creativity rather than understanding that skills are tools for expressing creativity. The majority of students coming into Graphic Design are incredibly deficient in skills. Asking students to write their name is usually sufficient to reveal just how weak they are in this respect. If teachers are consistently demanding of hand skills and craft in the course of doing class work, most students become proficient by the end of the first year. Students need instruction in the use of tools and materials, even a pencil! Nothing should be taken for granted when dealing with introductory level students.

From an ideal standpoint, craft is an expression of student pride and respect for their work. Good craft is rudimentary to professional practice and students need to be impressed with this fact. Craft is critical to the refinement process and development of eye and hand skills. Teachers should be concerned with craft in all areas of study at every grade level, but especially in the first year.

Students need instruction in the use of tools and materials, even a pencil.
At the introductory level, it is not unusual to state criteria which are limited only to the problem at hand, and not to design in general.

An effective testing procedure is to give unannounced *visual* tests. This entails giving three or four part tests to be completed within the class period. The work can be done with paper and pencil.

While the test relates to design objectives the students are working on in class, the content is changed. The completed test reveals how well students are understanding problem objectives. The test helps me to identify and reach students who need more assistance.

Another practice is to bring the students into a discussion group after completing an exercise to talk about what was, or could be, learned from doing the exercise. If appropriate, we also consider practical applications of the theory on which the exercise was based. Efforts are made to get as many individual students to participate as possible even calling on them one by one.

I found it helpful to periodically give a quiz on terminology. Definitions did not always come from the dictionary, but were the ones used by teachers in the context of class work. Common definition of terms helps to ensure student communication with teachers as well as better understanding of problem objectives and criticism.

There is an old saying, “He who knows the theory, but knows not the practice, knows not the entire theory; he who knows the practice, but knows not the theory, knows not the entire practice.” At various times in my career, I taught in foundation programs and most recently have concentrated my efforts in basic design. My observation is that students might do well with theoretical studies, but when they move on in the program, they leave behind what they learned in beginning courses.

At the introductory level, it is **not unusual** to state criteria which are **limited** only to the problem at hand, and **not** to design in general.
Visual Communications

Another form of bridging the gap between theoretical and practical studies is a class in visual communications that I taught concurrently with basic design. This class deals with generating visual communication concepts at a theoretical level. The premise for the class was conceived along the lines of poets communicating with words, musicians with sounds, and designers with shape, color, line and composing elements. It is an excellent class for melding theoretical with conceptual at an introductory level.

Visual communications is primarily concerned with the development of concepts which are then expressed using theoretical criteria and they require a high level of craft to assemble. Students are restricted to cut and torn colored paper. This permits them to work quickly, it prevents students from becoming overly involved with details and it helps to keep the focus on communication rather than illustration. The criteria are:
1. quality of concept,
2. formal values and
3. craft in that order.

The course objective was to indoctrinate students to Graphic Design as visual communication. Hopefully, throughout their career, students would ask themselves, “What am I trying to communicate” and “Am I communicating it as clearly and directly as possible?”

The problems are progressively complex. The first ones are based on words and limited to ten one-inch black squares. Communication is established through arrangement of the squares within a ten-inch square format, i.e. flight, tumble, conflict, etc. The next series uses ten one inch squares with color as added communication, i.e. joy, growth, sorrow, etc. The next series are free-form studies using color within a given format. Problems are assigned in pairs such as hot and cold, wet and dry, hard and soft and so on. These exercises are done over an extended period of time until students are comfortable with the concept and criteria.

Direct and Indirect communication is discussed. Indirect communication is communicating through association. Examples are a stove for hot or an ice cube for cold. Direct communication is using color, shape, line and positioning which is relevant to what is being communicated.

Direct communication is the principal course objective. In the more complex problems, emphasis is placed on symbolic interpretations rather than literal illustrations.

The next step might be a tool, what it looks like, how it works and what it does. At this point, size restrictions are removed and students work with larger formats. Other problems might deal with visual explanation of a scientific principle, natural phenomena, metamorphosis or similar subject material. At this stage, there was a wide range of problems to be given and I would assign as many, and as complex assignments as the class could handle.

In visual communications, class critiques with students grew out of discussions of the work. If the class level was below what it should be, students were asked to make refinements and show it again the following week. I never moved to a new problem until the class as a whole reached a reasonable performance level.

Visual communication was taught once a week in a one hour period taken from the basic design course. The hour was used to critique student work and to present new problems. All student work was done outside of class. I chose this method of teaching the class because individual work was less influenced by what other students were doing. As concept was the first objective, working independently became an important factor.

Ideally, a foundations program should be confined to the study of color, drawing, theoretical two-and-three-dimensional design exercises, and art or design history.

Pedagogy
An art orientation course taught through slide lectures is suggested at this level. Content should be selected that parallels, illustrates and reinforces the studio program content and objectives. The orientation class is more effective when taught in this context by a studio person rather than by an art historian.

In contrast to the chaos of a misdirected foundations program with its enormous diversity of media, images and values, student work from a structured program based on theoretical studies will be relatively uniform in content and imagery. This results from exercises that have strict limitations in objectives, materials, tools and format. There is less variety of student work as teachers concentrate on fewer projects, but require greater exploration and refinement within each exercise.

Structured foundations programs are open to frequent criticism by upper level instructors with remarks such as: “All the work looks the same.” “The problems do not permit students to be creative.” “The work looks exactly like what students did last year.” “The program is too rigid.”

For each class of students, the problems and objectives are new and challenging, so it is immaterial if this year’s work looks like what was done last year. Experienced foundation teachers vary the imagery, but seldom do they change the educational objectives. It is my observation that students in strong programs, whether at the beginning or end, acquire a style while they are in school. However, when they graduate and progress in their careers, styles usually change or dissipate; but values and visual acuity do not.

Regardless of contemporary practices in Fine Art, whether the interpretations are conceptual, psychological or experimental, I think a traditional education in visual principles during the first two years reinforced by the discipline of hand and eye skills is still appropriate. No matter how Fine Art is expressed, it is still visual, and visual principles apply.