Planning Curriculum in
Art and Design

Wisconsin Department of Public Instruction

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Foreword

Art and design education are part of a comprehensive Pre-K-12 education for all students. The Wisconsin Department of Public Instruction continues its efforts to support the skill and knowledge development for our students across the state in all content areas. This guide is meant to support this work as well as foster additional reflection on the instructional framework that will most effectively support students' learning in art and design through creative practices.

This document represents a new direction for art education, identifying a more in-depth review of art and design education. The most substantial change involves the definition of art and design education as the study of visual thinking – including design, visual communications, visual culture, and fine/studio art. The guide provides local, statewide, and national examples in each of these areas to the reader. The overall framework offered suggests practice beyond traditional modes and instead promotes a more constructivist approach to learning. Students are encouraged to share in the educational path as a partner in the educational process.

A special thank you is extended to the Art and Design Task Force for their work in constructing this document. The arts and creativity matter, and DPI supports districts through our fine arts and creativity education consultant. This report is a resource for all who are interested in establishing, enhancing, and promoting the arts and creativity in new schools. While this is not a mandated curriculum, it does act as a valuable resource to assure that Wisconsin continues to lead in arts and creativity education to build literate arts citizens across the state.

Tony Evers, PhD

State Superintendent

Task Force

A *Guide to Planning Curriculum in Art and Design* would not have been possible without the efforts of many individuals.

The Art and Design Task Force members gave freely of their time and expertise in drafting the guide and building on the work of the task force that drafted the previous guide published in 1995. The employing agencies of all of these people were generous in granting them time to work on the publication. Task force members include:

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This guide is dedicated to Martin Rayala, whose early draft of an art and design curriculum guide formed the basis of our work. Martin's beliefs about what art and design education should be still appear visionary some seven years after they were first put on paper.

The authors also wish to recognize Melvin Pontious, who brought the group together, on his retirement after many years of service to arts education in Wisconsin.

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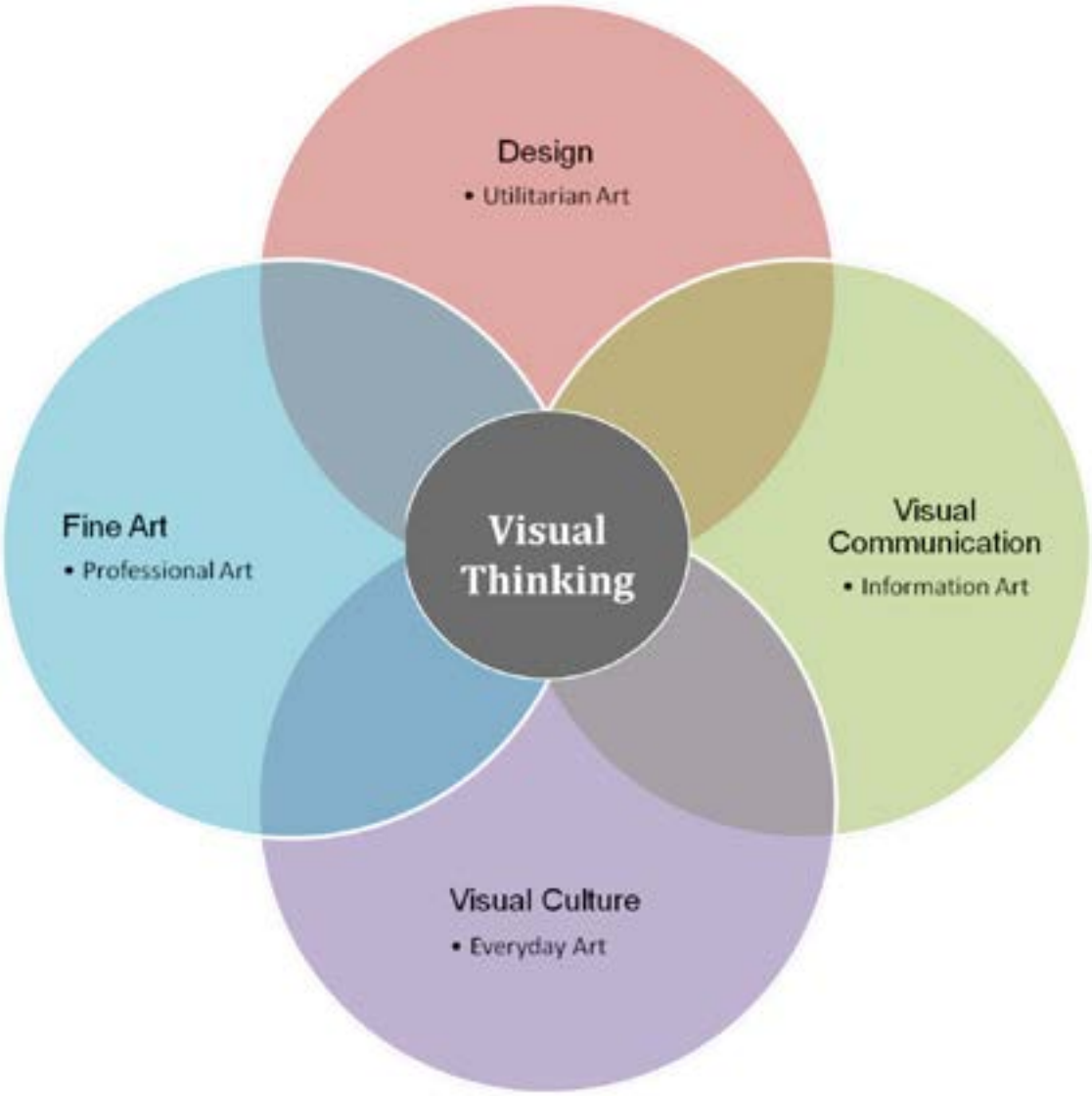
Design
• Utilitarian Art
Fine Art
• Professional Art
Visual Thinking
Visual Communication
• Information Art
Visual Culture
• Everyday Art

Visual Thinking

1

A New Approach to Art and Design
Design Process
Essential Skills
Integrating Aesthetics
Methods of Teaching and Learning
Formative and Summative Assessment
A New Kind of Guide

A New Approach to Art and Design

Planning Curriculum in Art and Design represents a new direction for art education. The most significant change suggested is in the breadth of the art and design curriculum promoted in this guide. **This guide defines the subject of art and design education as the study of visual thinking--including design, visual communications, visual culture, and fine/studio art.** The chart on the first page of this chapter is an attempt to show in graphic form the larger scope of potential art and design studies possible when art and design education becomes the study of visual thinking.

The second area of change is in the emphasis on explicit instruction about the design process. Students now learn specific steps in the writing and math problem-solving processes. Yet the process for creating new art or design is often demonstrated but left unexplained. This guide promotes the idea that the quality of students' work and the creativity they exhibit improves when they work through a process that they have learned and practiced.

The third area of change is in instructional method. In addition to recommending that a more or less standardized process be used to approach each new project or study, this guide promotes the concept of constructivism – the idea that real understanding is best created in the minds of students by giving each an opportunity to work and struggle with important concepts. To that end, discussions of instruction will emphasize long-term projects, more hands-on learning, and more decision-making left in the hands of students.

Finally, many changes have occurred in the area of assessment in recent years. This guide will promote the use of rubrics created with student input. These rubrics, created early in the design process, can be used for both formative assessment (done during the design process) and summative assessment (occurring when students' work is complete).

There are four other assumptions made within this guide that may signal a departure from the *status quo*.

- **The first assumption is that the essential skills of production are best learned within the context of student projects – at the time when students need them to continue the design process.** Student motivation is improved by the immediacy of their need and their understanding of these skills by the fact that they use them soon after they are learned.
- **The second assumption is that instruction in aesthetics should be integrated into every discussion about student work, from early discussions about possible solutions to a problem, through formative and summative assessments of their work.** Questions that require students to think about the impact of decisions made throughout the design process help them understand the aesthetics in a meaningful way.
- **Third, that good instruction involves children in actively constructing understanding through work on long-term projects.** The concept of constructivism suggests that students learn best when they have an opportunity to struggle with important concepts while working on solutions to real-world problems.
- **Fourth, that children should be involved in determining the criteria for success of each project, and actively engaged in formative evaluations of their work throughout the design process.** Rubrics created with student input allow them to better assess their progress while working on a project and more consistently reach their goal for a successful final product.

Brief discussions about these concepts follow, and more in-depth explanations occur in later chapters on instruction and assessment.

The complexities of modern life argue for more creative approaches to problem solving in all areas of endeavor. While the basic human need for two- and three-dimensional fine art has in no way diminished in the 21st century, other areas of design have gained in importance. New, more elegant design of common objects is now an essential part of commerce. Further, as communication has become increasingly dependent on visual media, a greater understanding of how design affects visual communication has become more important. And, it has never been clearer that a high level of creativity will

be required in order to make a difference with complicated issues such as improving public health, distributing food more efficiently, improving urban housing, and rebuilding national infrastructure.

Design Process

A representative example of the design process is shown within this page. The design process, followed in either a step-by-step manner or in a more intuitive fashion, is at the heart of the creation of good design—whether in art or industrial design, architecture or urban planning. It is, in fact, at the core of what is in a broader sense referred to as creativity. For that reason, **it is essential that the study of the design process be integrated into art and design instruction.** It should be noted that, in practice, the design process might prove to be non-linear, circular, and/or repetitive.

Essential Skills

The focus of new art and design curriculum on a broader range of subject matter and the design process should not be interpreted as an abandonment of instruction in essential skills. People working in any area of art and design will require prerequisite skills in order to be successful. Among the skills to be learned would be those traditionally taught in relation to the creation of art, an understanding of the aesthetics of visual media, a history of art and design, and the relationship between culture and design. The intent, however, is that **these skills will be taught in context.** Students would learn these skills at the time that they are required in order for the design process to move forward.

Integrating Aesthetics

While aesthetics is a term that is difficult to define, it is the responsibility of the art instructor to increase aesthetic awareness. For our purposes, aesthetic awareness will be defined as a combination of the understanding of the structure of art and the ever-changing socio-cultural environment of both artist and viewer and their implications. Aesthetic awareness can be integrated into instruction at many points within the design process. The effect of various alternative strategies, materials, techniques, etc. can be discussed from an aesthetic perspective during early discussions of the problem. Each formative assessment of a work being completed or studied gives yet another opportunity to discover how the aesthetic impact of the work has been enhanced or diminished by choices made by its creator. Involving students in some way

It is essential that the study of the design process be integrated into art and design instruction.

Learning is optimized when students construct their own understandings through using and refining concepts, principles, or propositions, rather than receiving them through direct instruction.

during summative evaluations and or the critique process provides yet another opportunity to discuss the aesthetic impact of their work. **The key in all cases is to ask questions that focus on helping students understand how choices made by the artist affect the ultimate impact of the final product--at the same time acknowledging that the cultural milieu in which the art was created and the individual understanding of the viewer are both legitimate parts of any discussion.**

Methods of Teaching and Learning

Two hundred years ago the goals in education were quite different from the present. Acquiring basic skills in numeracy and literacy were the primary objectives. The teacher transmitted knowledge by lecture, drill, and rote learning, with students responding with on-demand recitations and tests. Later, with the advent of industrialization, the efficiency of the factory was introduced to the classroom. Like an assembly line, teachers shared knowledge with students as they moved through each grade, periodically performing educational triage—sending some students on, holding some for further work, and allowing others to drop out. Education was a teacher-dominated activity, with students as passive recipients and teachers as judge.

Educational objectives have undergone significant changes since that time. In addition to the earlier basics, curriculum now includes not only other subjects, but also more expansive goals—higher-order thinking skills, a disposition to learn, critical and creative thinking, self-directed learning, and a high level of achievement for all students. Despite this change, much instructional practice and some current instructional models are remarkably similar to their 200-year-old ancestor, with the work of the classroom often regarded by students as the teacher's agenda, with a final grade the major reason for student investment in class work, and with direct instruction the dominant teaching mode.

This guide promotes the concept of constructivism--a model of learning based on the finding that **learning is optimized when students construct their own understandings through using and refining concepts, principles, or propositions,** rather than receiving them through direct instruction. The model of assessment recommended is one in which students are actively engaged with the teacher in planning projects, making artistic decisions, and formatively assessing their own progress in order to become independent learners, critical and creative thinkers. Finally, since constructing understanding of the important content or standards of art and design requires in-depth work over time, teachers are urged to focus on long-term projects rather than brief expository lessons.

Three other concepts basic to this guide may signal a change in the basic teacher-student relationship of earlier times. First, **the teacher should stand as an ally of students, helping them improve their work** rather than serving as a judge for whom they must *prove* their competence. Second, **the focus of the learning process needs to be shifted from the teacher to the students,** with the teacher facilitating student efforts. Third, **students should use formative self-assessment as a learning tool,** with supportive teacher

and/or peer feedback at appropriate times. Chapter 7 will provide additional background information on effective teaching and learning, as well as more practical examples of how to improve instruction in art and design education.

Formative and Summative Assessment

As noted above, formative assessment is best considered as part of the teaching and learning process. It is a tool used to help students evaluate their own work, and to allow teachers to give useful feedback during the design process. When used effectively throughout the instructional unit, **formative assessment can improve teaching and learning**--and, not coincidentally, the products students create.

From time to time during the school year, teachers are asked to judge student work in more rigid, evaluative fashion. These summative assessments generally try to capture a picture of the knowledge, skills, and dispositions. Knowledge of art and design concepts can often be captured by a written or verbal exam. **The assessment of skills within the fields of art and design, however, must rely on project-based assessments, portfolios and exhibits to assess students' abilities.** Practicing artists or designers can often be very effective in evaluating skills. Understanding students' disposition toward art may be gained through personal narrative, observation, surveys, and other evidence. Chapter 8 will provide more information on both formative and summative assessment in art and design education.

A New Kind of Guide

In terms of what there is to learn and how students will learn it, this curriculum guide attempts to prepare a new generation of educators for an expanded curriculum and broadened delivery system. This is not just another curriculum guide. It presents many new ideas unique to education in the 21st century. It is no longer business as usual for art and design education.

Chapters 2-5 will provide background information on each of the four broad areas of art and design (design, visual communications, visual culture and fine art) and provide sample unit plans using the design process. Following these specific, practical views of what art and design instruction can become, the guide will take time to present a broader perspective of art and design curriculum. These later chapters will discuss the curriculum writing process (Chapter 6), instruction (Chapter 7), assessment (Chapter 8), working with different abilities (Chapter 9), the integration of art in other subject areas (Chapter 10), safety (Chapter 11), out-of-school programs (Chapter12), as well as external artistic opportunities, aesthetics, statutes, and other resources (Appendices).

Design (Utilitarian Art)

2

"Design" identifies the development of a wide range of artistic, creative products distinct from fine art, visual communication, and visual culture.

Introduction
Design Defined
Goals in Design
Design in the World
Sample Design Unit Plan
Instruction in Design
Assessment in Design

Introduction

Design is a concept well known to art educators, but one taught infrequently and often from a narrow perspective. This chapter begins with a definition of design as used in this book. Design will then be discussed from a broader perspective, including its many uses and possible areas of study. This chapter will also include a sample unit plan.

Design Defined

The meaning of the word "design" has changed over the centuries, but design has existed since human beings picked up rocks and carved them for use as tools (Yelavich, 1997). For the purpose of this guide, the word design is used to identify the development of a wide range of artistic, creative products distinct from fine art, visual communication, and visual culture. It is a noun (product) and a verb (process). As a noun, it is both the plan and the final solution. As a verb, it is a cyclic routine of planning, decision-making, and evaluation applied to the making of an object.

Design seeks to produce "instruments for the improvement of modern life" (Fiell, 1999). These instruments can be as large as skyscrapers or as small as kitchen utensils, as insubstantial as software flowcharts or as concrete as a bridge, as much a captive of time as a video game or as enduring as a city park, as immediately useful as a chair or as ephemeral as the visualization of a new concept. What these products have in common is that the people who design them apply creativity and the ability to visualize solutions to practical concerns—often bringing beauty to utilitarian objects or elegant solutions to problems that could not otherwise be solved. The graphic that begins this chapter includes design-related objects, resources, and creators.

Goals in Design

Design is often not well represented in traditional art classes because most teachers in the past were trained in fine arts with little preparation or background in design. The National Endowment for the Arts' *Toward*

Civilization: A Report on Arts Education found that almost nothing related to architecture and the design arts is taught in schools. Design does not appear in most curricula and teachers are not prepared to teach it. Today, because of the phenomenal growth of image producing capacities of technology, many teachers are aware of the necessity to have basic visual design skills. Students should have experiences in school that: 1. Enables them to understand the role of design in the built environment; 2. Gives them the knowledge, skills, and attitudes to improve the quality of our lives through design. Because the design process concerns itself with "that which does not yet exist; and 3. Encourages learning behaviors that prepare students for an environment for change (Meredith Davis, Peter Hawley, Bernard McMullan, Gertrude Spilka, 1997).

Design in the World

In a world that is significantly visual, it is easy to see that design is everywhere. Except for the few locations purposely kept in a natural state, the entire environment is ordered and organized. All objects are user-centered regardless of their scale—whether toothbrush, clothing, signage, webpage navigation, automobile, architecture, theme park, urban environments, or technological systems. Further, design has always been influenced by emerging technologies to shape the object and our lives (Aarts & Marzano, 2003). The cities people live in, the clothes people wear, buildings where people work, parks where people play, even the objects people use to accomplish their varied tasks are all designed. The people responsible for this work must have well developed visual skills and abilities (Sparke, 1987).

A designer must know many things – tools, processes, and materials; the social, cultural, and psychological impact of the object; how people interface with the object and how it benefits the user; sustainable practices and environmental impact (Wilhide, 2002); the relationship of user, function, and benefits; economics in both materials and labor; emotional and aesthetic responses (Norman, 2004); and ability to communicate ideas and philosophies of the designer (Marcus, 2002). Designers hope to achieve levels of high craftsmanship in their mass produced materials so that all people can experience high quality goods (Cabra, Nelson).

There are a variety of endeavors for which design is the central work. These include **object design** areas such as product design, fashion, transportation, appliances, electronics, toys, etc.; systems design areas such as integrated communication systems in personal communication devices, air handling systems in architecture, etc.; **environmental design** areas such as architecture, landscape, interior, urban planning, exhibit design, etc.; and, **experience design** areas such as interactive games, interactive museums, theme parks, recreational facilities, etc. Art teachers often say that art is all around us; actually they mean that "design" is all around us.

User-centered design often provides incremental improvement in both the function and user interface of an object. This type of thinking is illustrated by the example of someone asking how we might design a better steam iron. The first consideration should be the primary function or purpose of the steam iron,

in this example, removing wrinkles. Work can then begin on designing an object that effectively removes wrinkles, rather than on redesigning any single element of an existing iron.

Object Design

Everyday objects that we view, purchase, and use are designed. Some are well designed, others poorly designed, and many are in-between. Objects are designed by a wide range of people on various scales – from one-of-a-kind, to small production, to mass-produced objects. Concepts pertinent to object design include form and function, ergonomics, sustainable design, user-centered design, and design philosophy. The Industrial Design Society of America (IDSA) uses six criteria to identify good design: design innovation; benefit to the user; benefit to the client/manufacturer; benefit to society and natural ecology; responsibility to social, economic, environmental, cultural concerns; and, visual appeal and aesthetics. These criteria should be used by students and teachers to evaluate existing objects and objects designed by students. More advanced concepts include *User-centered design* (the study of the interaction between the user and object during a task), and *Activity-centered design* (focus on the context and motivation of the user when using the object). Regardless of the underlying technology of objects, whether primarily electronic or mechanical in nature, design that improves the interaction between user and object relies on the study of user-centered and activity-centered design.

While communication design, experience design, and environmental design have all seen a shift from male dominated fields to areas with greater parity for female designers, object (industrial) design remains a male dominated endeavor. It is essential, therefore, that from a very early age both boys and girls take apart objects, put them back together, combine parts, and examine the materials and mechanical properties of objects in order to create an understanding of "how things work."

It is essential that from a very early age, students take apart objects, put them back together, combine parts, and examine the materials and mechanical properties of objects in order to create an understanding of "how things work."

Important Designers and Design Studios

Designers: Philippe Starck, Helen Yardley, Charles Jenks, Michal Graves, Stefanie Hering, Jasper Morrison, Marie Christine Dorner, Raymond Loewy, Marcel Breuer, Mies van der Rohe, Alvar Aalto, Walter Gropius, Charles and Ray Eames, James Dyson, Jane Atfield, Pia Wallen, Kazuhiko Tomita, Marta Sansoni, Kaim Rashid, J Mays, Hella Jongerius, Jonathan Ive, Patricia Urquiola, Matali Crasset, Stephen Burks, Brooks Stevens, Nicholas Negroponte, P. J. & J. P. S. Hendrikse

Design Studios: Swatch; IDEO; Alessi; Memphis; TKO; Tangerine; Sony Design Center; Lunar Design; JAM; Vestergaard Frandsen, Co.

Systems Design

The development of objects into integrated systems in order to enhance performance and function is a form of system design. *Apple's* iPhone and its competitors, for example, merge multiple functions into a single, handheld, integrated system. In a similar way, the flight deck of the *Boeing 777* airliner uses a relational system to integrate multiple gauges into a large graphic display in order to more effectively convey information on the status and interaction of the plane's many functions and controls. Integration of multiple objects and functions into systems saves natural resources, enhances compatibility of objects, and reduces redundancies of shipping, packaging, and containers.

Systems design includes a wide range of objects, including computer structures, interfaces, architecture, navigation systems, and data handling systems. It also includes more advanced concepts of design, for example, ambient intelligence – the design of objects that "think" for us by interpreting our actions, intentions, and emotions. The early levels of this technology are evident in remote sensing devices in our environment, from the motion sensor to turn on the light or other device, *Microsoft Word* software that anticipates our patterns when we type, or software sensing patterns of our purchases online to recommend related materials. Integrated technologies are likely to become more common in all areas, including systems that anticipate our physical needs in terms of temperature, hearing, nutrition, perhaps even emotion, and adjust to create an optimum environment.

Experience Design

Experience design is the practice of designing products, processes, services, events, and environments based on consideration of individual or group needs, desires, beliefs, knowledge, skills, experiences, and perceptions. Trade shows, for example, seek to provide an environment that is alluring and aesthetically pleasing for visitors. *Warner Brothers' Studio*, *Walt Disney*, *Six Flags*, and other theme parks seek to involve visitors in an experience shaped by rich perceptual experiences. The opening ceremonies of the Summer Olympics in China, co-directed by Chinese filmmaker Zhang Yimou and Chinese choreographer Zhang Jigang, is an example of an extraordinary experience design.

There are at least six dimensions to experiences that are manipulated by experience designers: time, interactivity, intensity, duration, sensory/cognitive effects, and meaning. Experience design and fabrication involves architecture and interior design, graphic design, environmental design, lighting design, marketing, interactive and multimedia design, photography, and other industries involving multidisciplinary design teams. Nathan Sedroff (http://www.nathan.com/ed/glossary/) provides a conceptual framework for experience design that allows us to think in terms of how experience can be studied and then integrated into the design of objects and environments to make life more enjoyable, relevant, and connected to our natural and built environments.

Representative Experience Design Firms

Mauk Design; The George P. Johnson Company; Lorenc+Yoo Design; Kingsmen Creatives Ltd., Singapore; Hamilton Exhibits, Indianapolis; Chicago Exhibit Productions; SYMA Exhibit Design; Electronic Theater Lighting (ETC).

Environmental Design

Environmental design encompasses the planning of spaces at four levels: **personal** – e.g., the food preparation space in our home; **community** – e.g., large-scale structures or neighborhoods; **urban and regional** – e.g., large scale patterns within and among cities; and **global** – e.g., planning for better and innovative uses of water and natural resources for life-support. Environmental design is a study of the relationship of two other environments – built and natural – and how they relate to one another. It is a study of how design impacts people at a social, psychological, cultural, economic, political, and environmental levels.

Interior Design

The study of interior design, its development and change through history, is a useful way to explore the past and to make sense of the spaces in which modern life is lived (Pile, 2005). The design of spaces at the personal level takes into consideration the relationship of physical characteristics of a space, social, environmental, and psychological factors. Interior designers often specialize in either commercial or residential design. Both commercial and residential design are defined by the following areas of knowledge and practice: professional values, design fundamentals, interior design, communication, building systems and interior materials, regulations, and business and professional considerations (http://www.accredit-id.org/). Interior design problems should involve all seven of the areas of knowledge noted above within the context of the physical characteristics of the space, social factors, environmental factors, and psychological factors.

Interior Designers of the Modern Era

Charles Rennie Mackintosh & Margaret MacDonald – Arts and Crafts movement; Antoni

Gaudi – Nouveau style; Gerrit Rietveld - De Stijl style; Marcel Breure – Bauhaus; Alvar Aalto - Finnish design; Pierre Chareau – House of Glass; Philip Johnson – Farnsworth house, Glass house; Walter Gropius – International Style; Herman Hertzberger & Aldo Van Eyek – occupant participatory design philosophy; Richard & Dion Neutra – Modernism; Charles & Ray Eames – use of standard industrially produced parts; Annie Albers – textile of Bauhaus design; George Nelson – Furniture & office; Shiro Kurumata – furniture design; Eero Saarinen – furniture; Frank Lloyd Wright – Architecture, interior design, furniture; William Pahlmann – 1950's; Pamela Babey – commercial; Audree Putman – commercial; Frank Gehry – corporate; Tadao Ando – minimalist; Elsie de Wolfe – "first professional designer"

http://www.architectureweek.com/2001/0905/culture_1-1.html

Architecture

Architecture involves the design and construction of an integrated set of systems through: program planning; structural systems; building design, materials, and methods; construction documents and services; building schematic design; site planning and design; and building design and technologies. In addition, this discipline requires an understanding of social and cultural values, economic and political implications, and sustainability. The Leadership in Energy and Environmental Design (**LEED**) Green Building Rating System, developed by the U.S. Green Building Council (USGBC), provides standards for environmentally sustainable construction by addressing six major concerns: 1) sustainable sites; 2) water efficiency; 3) energy and atmosphere; 4) materials and resources; 5) indoor environmental quality; and 6) innovation and design process.

It is important to keep in mind that architecture is intimately connected to cultural patterns; in Chinese architecture, for example, the height of the threshold indicates the relative status of the occupant (Oliver, 1987; 2003). Design can also be used to strengthen cultural understandings; the Oneida Nation's tribal school in Green Bay (WI) was designed in the shape of a turtle in order to represent the birth of the Oneida Nation and the base of the Oneida Cultural Tree (Herselle Krinsky, 1996). Art teachers should develop design problems that necessitate learning and application of integrated architectural systems, green design, and cultural considerations. In addition, creating design problems that focus on the needs of the global community may prove a more timely design challenge than designing for economically affluent clients.

Architects of Note

Julia Barfield; Rebecca L. Binder; Milwaukee Art Museum, Santiago Calatrava; Le Corbusier; Antoni Gaudí; Frank Gehry; Cass Gilbert; Sir Norman Foster; R. Buckminster Fuller; Marion Mahony Griffin; Bruce Goff; Walter Gropius; Zaha Hadid; Frank Lloyd Wright; Arata Isozaki; Philip Johnson; Rem Koolhaas; Maya Ying Lin; Richard Meier; Mies van der Rohe; Julia Morgan; I.M. Pei; Cesar Pelli; Richard Rogers; Eero Saarinen; Adele Naude Santos; Laurinda Spear; Robert A. M. Stern; Richard Thern Design Center; Christopher Wren

Urban Design

Urban Design is a multidisciplinary practice that plans the interaction among land use, transportation, and both built and social environments in urbanized communities. Urban design has social implications, ramifications for economic development, and engages environmental policy and planning. It is a form of analysis, problem solving, planning, decision-making, and communication. Urban planning is actually applicable to any community and place, from rural areas to small cities and large urban centers. It may involve the revitalization of cities, introduce new forms of urbanism, and change the forms of cities relative to growth and function.

For the past 100 years, planning and development of urban and rural spaces has been shaped by the use of the automobile. *Congress for the New Urbanism* (CNU) is a leading international organization promoting new urbanist design principles. They believe that neighborhoods should be diverse in use and population; communities should be designed for the pedestrian and transit as well as the car; cities and towns should be shaped by physically defined and universally accessible public spaces and community institutions; urban places should be framed by architecture and landscape design that celebrate local history, climate, ecology, and building practice. An educated public will need to analyze information along with planners and policy-makers to shape the physical and visual design of communities of the future. In every community – large and small, urban and rural – teachers can identify areas for design study, develop and propose short- and long-term planning, and create and present information (words, models, graphics) to community leaders for thoughtful change of their community.

Landscape, Urban, and Regional Designers: Tokugawa Ieyasu, Tokugawa Hidetada, Tokugawa Iemitsu, Takatora Todo-Edo; Christopher Wren – London; William Penn and Thomas Holme – Philadelphia; Maharaja Sawai Jai Singh,India; Peter Charles L'Enfant, Benjamin Banneker, Andrew Ellicott – Washington, DC; Daniel Burnham – Chicago, Illinois; Clarence Stein – Baldwin Hills Village, Los Angeles; Robert Moses, urban renewal New York City; Ernst May – Soviet Union; Frank Lloyd Wright – Broadacre City (concept); Le Corbusier – Chandigarh, India; Lucio Costa - Brasília, Brazil; William Pereira – Irvine, California; Jaime Lerner – Curitiba, Brazil (transportation and land use combination); Walt Disney – Experimental Prototype Community of Tomorrow (concept); Agustín Landa Verdugo – Cancun, Mexico; Moshe Safdie – Coldspring New Town, Baltimore, Maryland; Stanton Eckstut – Battery Park City, NY; Andres Duany, Elizabeth Plater-Zyberk – Seaside, FL; Steven Bingler – New Orleans, Louisiana (Unified New Orleans Plan); Charles Jenks, landscape architecture/artist; Denise Scott Brown, African-American urban planner; Philip Lewis, regional planner; Peter Katz, new urbanism School of Architecture and Urban Planning at UW-Milwaukee: http://www.uwm.edu/SARUP/

Regional Design

Regional Design involves shaping patterns in the natural and built environment at a large scale. Consider the urban corridor from Chicago, Milwaukee, Fox Valley, Wausau, Twin Cities (MN), La Crosse, Dubuque, and Rockford back to Chicago. This urban corridor of connected cities contains about 14,000,000 people. The future growth of these cities should not be a random act of development, but a carefully studied and guided process. Regional designers consider the relationship of at least four systems when proposing large-scale plans: environment, industry and business, residential, and transportation (Lewis, 1996). Lewis suggests that we ask three questions to guide development: Where not to build? Where to build? and, What to build? An initial step in regional design practice involves the identification of significant form determinants in the natural and built environment. These significant forms (human made and natural) are valued and we seek to protect them. These include natural features such as a slope of 12 degrees or greater, “Grade A” farmland, aquifers, lakes, streams, high-grade timber, as well as human made features such as Indian mounds, monuments, and architecturally significant buildings. Each development decision should minimize the impact on important natural elements and enhance these valued form determinants. Effective regional planning balances environmental, industrial/business, residential, and transportation concerns in order to achieve the best possible results.

Environmental Designers

Philip Lewis – Lake Park, Nine Springs E-Way, Madison, WI; Christopher Alexander – Pattern Language of interior design, city design, urban design and global design; Frederic Law Olmsted and Calvert Vaux's – Central Park, NY; Le Corbusier - Contemporary City, linear city, Buenos Aires; Arthur Holden, courtyard-type organization for housing; Rural Studio: Samuel Mockbee; Raymond Unwin, and Barry Parker – cul-de-sac suburban design; Beijing Municipal Institute of Urban Plan & Design; MIT School of Architecture and Planning; School of Architecture and Urban Planning at UW-Milwaukee: http://www.uwm.edu/SARUP/

New Design Directions and Initiatives

In today's world, we need to recognize ourselves as citizens of a global community, a community with people of all different cultural, socio-economic, and physical differences. There is a growing trend among designers to create affordable and socially responsible objects for the vast majority of the world's population (90 percent) not traditionally serviced by professional designers (Cooper Hewitt National Design Museum). "The majority of the world's designers focus all their efforts on developing products and services exclusively for the richest 10% of the world's customers. Nothing less than a revolution in design is needed to reach the other 90%." (Paul Polak, *International Development Enterprises*). Design is a form of art making with the potential to shape every aspect of every life. Art teachers need to create meaningful design problems at various scales to engage students in how we develop our community, region, country, and world for the betterment of all citizens of the world.

Related Designers and Institutions

Designers: Rural Studio: Samuel Mockbee; Paul Polak; Victor Papanek; Alex Steffen; Vestergaard Frandsen.

Institutions: Make It Right Foundation; Architecture for Humanity; Design for Democracy; International Development Enterprises (IDE); MIT D-LAB.

Sample Design Unit Plan

The following pages contain sample design unit plans for primary, intermediate, middle school, and high school students. These plans have a primary focus on design within the context of the design process. The plans apply concepts of design to objects, but also require students to think in terms of visual communications and culture. Instruction in important skills related to design is integrated into the plans and *Wisconsin's Model Academic Standards for Art and Design Education* are noted. These plans – like those to follow in

the areas of visual culture, visual communications, and fine arts – are based on guiding students through the design process as they create their final product.

Designs of the World: Urban Design

Problem: Develop regional and urban design solutions for New Orleans (post-Katrina) reconstruction.

Lesson Procedure Description: Page 18

Key words: City, urban, regional design and planning; sustainable design of cities; green building design; LEED Green Building Rating System

Urban designers consider: Urban structures - How a place is put together and how its parts relate to each other; **Urban typology, density, and sustainability** – Spatial types and use/function related to intensity of use, consumption of resources, and maintenance of viable communities; **Accessibility** – Providing for ease, safety, and choice when moving to and through places; **Animation** - Designing places to stimulate public activity; Function and fit – Shaping places to support their varied intended uses; **Complementary mix uses** – Locating activities to allow constructive interaction between them; **Character and meaning** – Recognizing and valuing the differences between one place and another; **Order and incident** – Balancing consistency and variety in the urban environment; **Continuity and change** – Locating people in time and place, including respect for heritage and support for contemporary culture; and **Civil society** – Making places where people are free to encounter each other as civic equals. (http://en.wikipedia.org/wiki/Urban_design)

Instruction in Design

The sample unit plan presents many opportunities for good instruction. First and foremost of these opportunities is the emphasis on the design process. By presenting explicit instruction on the steps and feedback loops in the process and following this process during instruction, teachers guide students toward a better understanding of the thought processes used in creating any kind of art or design product. In this sense, the plan mimics the best constructivist instruction now occurring in the areas of math, language arts, and science.

This plan also lends itself to group interaction in planning. Whether these interactions are informal or based on principles of cooperative learning, whether they involve whole group instruction or small group projects, instruction is improved by virtue of students working together actively to plan and think critically about their work. This interaction is also more reflective of the work place in which most students will find themselves as adults—particularly in the field of design. This plan could, in fact, be implemented with a variety of individual, small group and large group interactions, producing either a single or multiple products.

Graphic organizers related to the problem presented and/or the research surrounding it are yet another potential route toward effective instruction in art and design. Student-created visual systems can make criteria for success more explicit, help students better construct their own understanding, and provide them with more effective ways to approach future design problems. It is not expecting too much to ask that even young design students think graphically about the problems they are attempting to solve and the criteria for success of the products they will create.

The use of visual models and 3-D mock-ups as indicated in the plan also allows children to experience their work in a more meaningful, personal way. This increased level of involvement also produces greater learning. For many students this more active, interactive, hands-on approach will also help them more effectively build their own internal understanding of design in a way consistent with constructivist views of learning.

By involving students in creating a rubric to be used in both formative and summative assessment, the eventual quality of designs is greatly improved.

Assessment in Design

As students work together to define a design problem, research it and set criteria for its ultimate solution, they are also creating a measure for its eventual assessment. That is, discussions about the problem to be solved naturally result in questions about its functional success. Reports on research may provide alternative solutions against which to measure student projects. Criteria related to materials, function and form also readily become yardsticks against which results can be compared. By involving students in creating a rubric to be used in both formative and summative assessment, the eventual quality of designs is greatly improved. The three sample assessment rubrics that follow demonstrate how assessment of design can be accomplished with different assessment content leading to different types of assessment, reflection and knowledge.

Units of the sort described give teachers choices about who will assess student outcomes. The traditional teacher-only developed narrative and grade for a project is just one possibility. Students could be asked to help the teacher assess their work, could be involved in evaluating each others' projects, or be part of a more general discussion about the resulting products. Those scenarios involving greater student involvement in assessing outcomes create additional powerful opportunities for learning.

Because the world of design has become so important in so many businesses, teachers may also have the opportunity to involve practitioners in the assessment process. In the case of the plans presented above, older students in particular, might benefit from the counsel of an engineer, product-development specialist, model-maker, graphic designer, marketing specialist, etc. In fact, having these outside specialists involved both early and late in the design process would provide for a powerful and practical learning experience.

Assessment Rubric:

Design Process	Primary	Intermediate	Middle School	High School
Identify and Define Problem	Develop urban solutions for the neighborhood and life-needs.	Develop urban solutions for: housing, schools, life-needs, government, business, and transportation.	Develop urban solutions for: systems of housing, schools, government, business, transportation, and social services; scale from personal to regional impact.	Develop urban solutions for: interaction among physical, biological, social and technological systems; scale from personal to global impact.
Brainstorm, Research, and Generate Ideas	Geographic location in US; how people live-past and present; characteristics of environment.	Local history; development of the city in relationship to the river; ethnic groups and population; site and environmental problems; loss of housing and businesses.	Types and history of architecture; role of government at different levels, census data; economics of business, trade and culture; demographics of population; displacement of people.	Physical factors involving physics of fluid dynamics, gravity, physics; biological environment; social factors of economics, social history, trade, linguistics, arts, government, and social programs; technical developments necessary for a city below sea level; housing, business; statistical analysis.
Determine Criteria for Solutions	Conveys needs of family and neighborhood. Plans for: transportation, residential, business, environmental, and social needs; aesthetics; land use; local history; sustainability.	Conveys needs of family, neighborhood, city. Plans for: transportation, residential, business, environmental and social factors; aesthetics; land use; local history; sustainability.	Conveys needs of family, neighborhood, city, US. Plans for: reconstruction and renewal; transportation, residential, business, environment and social factors; aesthetics; land use; local history; sustainability.	Conveys needs of family, neighborhood, city, US, and global interaction. Plans for: reconstruction and renewal; transportation, residential, business, environment and social factors; light and sound; aesthetics; zoning; land use; local history; safety; sustainability.

Explore Possible Solutions	Using images and text to create blocks of information on research and criteria. Construct the site/ environment; use common materials to quickly produce patterns in the urban plan. Assess strengths and weakness of plans in meeting criteria. Record feedback.	Using images, text and shapes (tables) to create blocks of information on research and criteria. Construct the site/ environment; use common materials to quickly produce patterns in the urban patterns. Assess strengths & weakness of plans in meeting criteria. Record feedback.	Create multiple bubble diagrams of how criteria can be visualized for patterns & solutions. Develop quick paste-ups of images and words to convey possible solutions. Construct the site/ environment; use common materials to quickly produce patterns in the urban plans. Assess strengths and weakness of plans in meeting criteria. Involve some professionals in assessment. Record feedback.	Create multiple bubble diagrams of how criteria can be visualized for patterns and solutions. Develop quick paste-ups of images and words to convey possible solutions. Construct the site/ environment; use common materials to quickly produce patterns in the urban plans. Assess strengths and weakness of plans in meeting criteria. Involve design professionals and stakeholders in assessment of initial plans. Record feedback.
Select Appropriate Solutions	Use assessment and feedback to create and refine solution(s). Produce urban plan model using common materials and forms; focus on the patterns and relationship of parts. On-going evaluation of criteria.	Use assessment and feedback to create and refine solution(s). Produce urban plan model using common materials and forms; focus on the patterns and relationship of parts. On-going evaluation of criteria.	Use assessment and feedback to create and refine solution(s). Produce: topography of site using layers of cardboard; urban plan model using common materials and forms; focus on the patterns and relationship of parts. On-going evaluation of criteria. Provides text information to convey how plan meets criteria.	Use assessment and feedback to create and refine solution(s). Produce: topography of site using layers of cardboard or foam core; urban plan model using common materials and forms; focus on the patterns and relationship of parts; use two different materials/colors to distinguish between new (change) and old (unchanged) objects. On-going evaluation of criteria. Provides presentation through text, movie, PowerPoint presentation to convey how plan meets criteria; short- and long-range planning of site.
Create and Implement Solutions	Exhibit in school with other grade-level classes.	Make presentation during open-house; record responses via video.	Exhibit in public space outside of school; make public presentation.	Make a presentation to city leaders, civil engineers, urban planners and stakeholders.
Test Solutions and Evaluate, Reflect, Redefine, and Rework	Discuss feedback in relationship to urban plan.	Discuss feedback in relationship to urban plan; note feedback, and describe possible revisions of urban plan.	Receive feedback; record responses via video; discuss feedback in relationship to urban plan; document revisions within display of urban plan.	Receive feedback; record responses via video; discuss feedback in relationship to urban plan; document revisions within display of urban plan; make revisions in urban model.

Wisconsin's Model of Academic Standards	Primary.	Intermediate	Middle School	High School.
Art and Design Education	Knowing… A: Visual Knowledge Doing… C: Visual Design and Production D: Practical Applications Communicating… E: Visual Communication and Expression F: Visual Media and Technology Thinking… H: Visual Thinking Creating… K: Making Connections	Knowing… A: Visual Knowledge B: Art History, Citizenship, and Environment Doing… C: Visual Design and Production D: Practical Applications Communicating… E: Visual Communication and Expression F: Visual Media and Technology Thinking… H: Visual Thinking Understanding… J: Cultural and Aesthetic Understanding Creating… K: Making Connections	Knowing… A: Visual Knowledge B: Art History, Citizenship, and Environment Doing… C: Visual Design and Production D: Practical Applications Communicating… E: Visual Communication and Expression F: Visual Media and Technology Thinking… G: Art Criticism H: Visual Thinking Understanding… J: Cultural and Aesthetic Understanding Creating… K: Making Connections	Knowing… A: Visual Knowledge B: Art History, Citizenship, and Environment Doing… C: Visual Design and Production D: Practical Applications Communicating… E: Visual Communication and Expression F: Visual Media and Technology Thinking… G: Art Criticism H: Visual Thinking Understanding… J: Cultural and Aesthetic Understanding Creating… K: Making Connections

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FIND IT

Visual Communication (Information Art)

3

Introduction
Visual Communication Defined
Visual Communication in the World
Goals for Visual Communication Instruction
Sample Visual Communication Unit Plan

Introduction

Visual communication may be a new concept to many. In this chapter, visual communication will be defined and described in many of its myriad forms. Goals for visual communication instruction are also discussed. A chart containing sample unit plans for various grade levels is included at the end of the chapter.

Visual Communication Defined

Visual communication is the act of organizing information into images that help create solutions to problems and/or promote understanding.

This curriculum guide endorses the simple truth that pictures speak as loudly as words or numbers. Visual communication is the act of organizing information into images that help create solutions to problems and/or promote understanding. It is both a tool for problem solving and a means for effectively conveying information. Scientists, mathematicians, economists, urban planners, etc., regularly find solutions to problems and share those solutions visually.

Richard Wurman (1997) referred to visual communications as information architecture. For Wurman the information architect uses the art and science of visual communication to convey complex information to a target audience as simply and clearly as possible. Robert Horn (1998) explored ideas about visual communication as found in scientific visualization, videoconferencing, computer-generated animation, advertising, television, movies, comic books, as well as through a variety of other everyday communications. Horn used the term "visual language" to describe a combination of words, images, and shapes used in a single, effective communication. Roam (2008) describes a four-step process of visual thinking that includes: looking, seeing (interpreting), imagining, and showing.

Rudolph Arnheim (1967) believed that visual imagery is the medium of creative thought in human activity and that schools, with their emphasis on words and numbers, discriminate against visual thinking and creativity. Robert McKim (1972) was one of the first to argue that traditional education too often ignores visual avenues for learning. McKim suggested that visual communication is often more suitable to student's needs than language, and

The communication of ideas and information requires ability to both code and decode experience and knowledge visually.

taps into realms of thinking that are different and more flexible than language allows.

Because society places such a high priority on linguistic and mathematical intelligences, often in the forms of reading, writing, and arithmetic only, many people have little education in visual-spatial ways of knowing and communicating. They then spend a lifetime hampered in their ability to solve problems or communicate ideas that require a visual component. Although 80 percent of one's information is obtained visually, art classes are one of the few places in the school curriculum where students have systematic opportunities to develop visual thinking skills. This guide advocates the role of visual-spatial-aesthetic modes of thought as essential forms of intelligence valuable in and out of the arts.

Visual Communication in the World

Visual communication helps people understand and communicate complex ideas, information, and realities. Understanding systems often requires the ability to form mental maps and construct visual metaphors. The communication of ideas and information requires ability to both code and decode experience and knowledge visually. Maps, charts, diagrams, plans, and models are all examples of visual tools that help people understand complex systems. One has only to consider such complicated natural and human-made structures as the human circulatory system, the London underground, weather patterns, the workings of a cell-phone, the Amazon River ecosystem, or population growth to recognize how images and visual symbols facilitate envisioning, comprehending, and understanding complex systems.

Visual communication systems have culture-specific roots. We experience human diversity when we observe and interact with the communications systems used by people around the world, like: alphabets, musical scores, dance notation, pictographs, maps, wiring diagrams, semaphore, and American Sign Language. These systems each possess similarities and differences that help us better understand and use existing visual systems. Knowing these visual systems, we are encouraged to experiment with developing systems of our own.

Sketches and Drawings

Sketches and drawings are made for purely aesthetic purposes and as visual tools that show us how the world works. Thumbnail sketches and other types of quick and spontaneous drawings strengthen one's powers of observation and are useful tools for communicating ideas. Personal journals that include visualizations, like sketches and drawings, are useful to organize thoughts and better document things, events, or ideas. Developing the ability to make graphic representations of ideas and information through sketching and drawing should be part of everyone's basic education.

Charts, Graphs, and Diagrams

Visual communications devices regularly used to communicate important information include flow charts, timelines, bar, and pie graphs, Venn diagrams, and scattergrams (Robertson, 1988). In a time when computers play a significant role in the collection and distillation of great amounts of data, visual depictions are important methods for sharing information in ways that facilitate ease of reading and interpretation. The best of these charts, graphs, and diagrams communicate information clearly and simply. Edward Tufte, a proponent for quality in the visualization of information, describes such visual quality in almost aesthetic terms with the phrase "graphical excellence" referring to needed characteristics of "clarity, precision and efficiency" (1983, p. 13).

Students need opportunities to learn how to use and create charts and diagrams to communicate information and to devise innovative ways to present ideas. They should be familiar with flow charts, bar charts, Venn diagrams, scattergrams, and a variety of other systems used to communicate information and ideas (Robertson, 1988). Students should have opportunities to see a wide variety of charts and diagrams, such as those used in *USA Today*, in *Time*, or *Newsweek* as well as annual reports of large corporations.

Resources on Visualizing Information

Some of the best sources about visualizing information and ideas are Edward Tufte's books *Visual Explanations* (1997), *Envisioning Information* (1990), and *The Visual Display of Quantitative Information* (1983).

Maps and Plans

Graphic representations that communicate spatial concepts in two-dimensional forms are referred to as maps and plans. Maps and plans are used in every area of modern life, from choreography to architecture, from manufacturing to space travel. These graphic representations portray movement, structural details, provide specific plans for the construction of an object, or indicate existing physical/geographic features.

Models and Presentations

Models represent and communicate how humans understand information and ideas that exists as space and time in three or four dimensions. Models can be preparatory and conceptual or more concrete in nature. Scale and site-plan models are used to show how a design or construction will appear when complete. Computers are often used to produce models that permit planners to present a space or object virtually – usually referred to simply as 3-D modeling – allowing others to see how an object or space will appear via the screen of a monitor. Scientists and mathematicians regularly construct models to help understand and communicate ideas and information relating to their fields of investigation. One of the most historic and significant models

is James Watson's and Francis Crick's 1950s innovative visual interpretation of the double-helix. That single representation served to revolutionize how people understood the DNA molecule.

Making models often involves an additional intelligence, what Gardner identifies as "bodily-kinesthetic intelligence," relating to how a body occupies space and operates within it. This includes using one's hands to make or form things. Sculptors, architects, craftspeople, model makers, potters, and jewelers use bodily-kinesthetic intelligence, as do engineers, carpenters, mechanics, and surgeons. Making structures, whether out of blocks or Legos, forming with clay, using manipulatives in mathematics, setting up experiments in science, and creating physical models of any type are part of developing bodily-kinesthetic intelligence. Thomas Armstrong (1994) outlines a variety of methods for including bodily-kinesthetic learning in education.

Photography, Moving Images, and Digital Content

When art teachers speak of media, they usually mean materials such as charcoal, paint, metal, and clay or processes such as lithography, photography, and acrylic painting. Mass media, such as movies and television, however, are also an important part of our world. Mass media exerts powerful influences on people's lives, shaping and reflecting people's beliefs, thoughts, and attitudes. In *Films Deliver*, John Culkin (Schillaci and Culkin, 1970) pointed out, "We live in a total-information culture, which is being increasingly dominated by the image. Intelligent living within such an environment calls for developing habits of perception, analysis, judgment, and selectivity that are capable of processing the relentless input of visual data."

Too often art and design teachers miss opportunities to expand students' understanding of the visual arts by failing to recognize the broader implications of visual literacy. Photography, film, video, and electronic media are areas that should become part of visual art and design programs. If art teachers feel they cannot fit these areas into the program because there is not enough time, the art and design staff is too small, or they have not been trained in these areas, then it would be good to talk to colleagues in vocational education and English language arts to find out how they overcame these constraints and were able to add media to their programs.

Goals for Visual Communication Instruction

Perceptual skills and visualization techniques are important to students developing an understanding of the world around them. Since most people have the ability to see, people often think that there is no need to learn how to see. But powers of observation and perception can be developed and thereby enhance abilities to understand and communicate. The broad goals for a visual communications curriculum should include:

- Improving cognitive development by using areas of the brain that process visual material.
- Helping students understand how knowledge of the natural and human-made world develop through seeing and doing.
- Providing students with a useful repertoire of visual inquiry skills.
- Helping students learn to solve visual problems.
- Helping students develop aesthetic judgment when working with visuals outside of the realm of fine arts.
- Improving communication skills.

Cognitive Development

Research on the human brain has shown differences in how people process visual information as opposed to verbal or aural stimuli. Concerns have been raised that neglecting other visual experiences in schools in favor of linguistic and mathematical learning can cause visual abilities to be underdeveloped. Scientists, engineers, mathematicians, and others know that to do their best work, they often rely on their ability to process complex information visually.

Knowledge Through Seeing and Doing

Another goal of visual communication is to develop students' abilities to discover new knowledge using visual techniques. Margaret Mead (1952), in creating a field that came to be known as visual anthropology, used photographs and films to help her do her research about other cultures. Throughout history, artists and photographers have been integral members of exploratory expeditions. Clarity of vision, and subsequently understanding, often occurs following concentrated observation.

Visual Inquiry Skills

Teachers can more explicitly share techniques for examining visual elements in the world and communications. Helping students think more specifically about how best to scan a scene, look at a page of text, or interpret a graphic can aid them in the study of language arts, math, science and the social sciences as well as art and design.

Visual Problem Solving

Visual problem solving is a key component of visual communication. Students should be provided opportunities to develop their visual problem-solving

skills in a variety of contexts. Often solutions to difficult problems require one to "see them in a different light." Visual problem solving is an essential tool in science, mathematics, social studies, and the humanities, as well as the arts. Whether one is building a house, laying out a road, hanging a picture, or conducting advanced research in genetics, there are a great number of small and large problems to solve that require visualization.

Aesthetic Judgment

Students should have opportunities to develop their abilities to make sound, aesthetic judgments in a variety of environments based on visual observation and personal experience. People with strong visual skills have the ability to perceive subtle nuances of expression, movement, gesture, and other visual cues that allow them to make better decisions based on what they see.

Visual Communication Skills

One of the goals of visual communication is to develop the ability to use visual techniques for communication. Too many people cannot make simple drawings to describe visual events. Some people must rely on complicated verbal directions when drawing a simple map which would be clearer and quicker. Since most people in the United States have not had an art class since sixth grade, they are generally very weak in their ability to communicate ideas and information visually, even when it would be the best way to do so. Students need opportunities to develop their visual communication skills just as they need to develop their written communication skills.

Students must also be aware of the power of visual communication because it is being used effectively to influence people's choices in everything from smoking cigarettes, spending money, buying alcoholic beverages, and developing eating habits, to voting for political candidates. Visual communication, like any other form of communication, can be used for good or ill, consider the varied motivating forces of advertising and propaganda. Learning about visual communication can empower people to be responsible citizens, as well as make them more effective consumers and communicators.

Sample Visual Communication Unit Plan

A sample visual communication unit plan related to urban design follows on the next two pages.

URBAN DESIGN

Problem: Develop regional and urban design solutions for New Orleans (post-Katrina) reconstruction.

Key words: City, urban, regional design and planning; sustainable design of cities; green building design; LEED Green Building Rating System

Urban designers consider: Urban structures - How a place is put together and how its parts relate to each other; **Urban typology, density and sustainability** - Spatial types and use/function related to intensity of use, consumption of resources and maintenance of viable communities; **Accessibility** - Providing for ease, safety and choice when moving to and through places; **Animation** - Designing places to stimulate public activity; Function and fit - Shaping places to support their varied intended uses; **Complementary mix uses** - Locating activities to allow constructive interaction between them; **Character and meaning** - Recognizing and valuing the differences between one place and another; **Order and incident** - Balancing consistency and variety in the urban environment; **Continuity and change** - Locating people in time and place, including respect for heritage and support for contemporary culture; and **Civil society** - Making places where people are free to encounter each other as civic equals. (http://en.wikipedia.org/wiki/Urban_design)

Assessment Rubric:

Design Process	Primary	Intermediate	Middle School	High School
Identify and Define Problem	Develop urban solutions for the neighborhood and life-needs.	Develop urban solutions for: housing, schools, life-needs, government, business, and transportation.	Develop urban solutions for: systems of housing, schools, government, business, transportation, and social services; scale from personal to regional impact.	Develop urban solutions for: interaction among physical, biological, social and technological systems; scale from personal to global impact.
Brainstorm, Research, and Generate Ideas	Geographic location in US; how people live past and present; characteristics of environment.	Local history; development of the city in relationship to the river; ethnic groups and population; site and environmental problems; loss of housing and businesses.	Types and history of architecture; role of government at different levels, census data; economics of business, trade and culture; demographics of population; displacement of people.	Physical factors involving physics of fluid dynamics, gravity, physics; biological environment; social factors of economics, social history, trade, linguistics, arts, government, and social programs; technical developments necessary for a city below sea level; housing, business; statistical analysis.
Determine Criteria for Solutions	Conveys needs of family and neighborhood. Plans for: transportation, residential, business, environmental, and social needs; aesthetics; land use; local history; sustainability.	Conveys needs of family, neighborhood, city. Plans for: transportation, residential, business, environmental and social factors; aesthetics; land use; local history; sustainability.	Conveys needs of family, neighborhood, city, US. Plans for: reconstruction and renewal; transportation, residential, business, environment and social factors; aesthetics; land use; local history; sustainability.	Conveys needs of family, neighborhood, city, US, and global interaction. Plans for: reconstruction and renewal; transportation, residential, business, environment and social factors; light and sound; aesthetics; zoning; land use; local history; safety; sustainability.
Explore Possible Solutions	Using images and text to create blocks of information on research and criteria. Construct the site/ environment; use common materials to quickly produce patterns in the urban plan. Assess strengths and weakness of plans in meeting criteria. Record feedback.	Using images, text and shapes (tables) to create blocks of information on research and criteria. Construct the site/ environment; use common materials to quickly produce patterns in the urban patterns. Assess strengths and weakness of plans in meeting criteria. Record feedback.	Create multiple bubble diagrams of how criteria can be visualized for patterns and solutions. Develop quick paste-ups of images and words to convey possible solutions. Construct the site/ environment; use common materials to quickly produce patterns in the urban plans. Assess strengths and weakness of plans in meeting criteria. Involve some professionals in assessment. Record feedback.	Create multiple bubble diagrams of how criteria can be visualized for patterns and solutions. Develop quick paste-ups of images and words to convey possible solutions. Construct the site/ environment; use common materials to quickly produce patterns in the urban plans. Assess strengths and weakness of plans in meeting criteria. Involve design professionals and stakeholders in assessment of initial plans. Record feedback.

Select Appropriate Solutions	Use assessment and feedback to create refine solution(s). Produce urban plan model using common materials and forms; focus on the patterns and relationship of parts. On-going evaluation of criteria.	Use assessment and feedback to create & refine solution(s). Produce urban plan model using common materials and forms; focus on the patterns and relationship of parts. On-going evaluation of criteria.	Use assessment and feedback to create and refine solution(s). Produce: topography of site using layers of cardboard; urban plan model using common materials and forms; focus on the patterns and relationship of parts. On-going evaluation of criteria. Provides text information to convey how plan meets criteria.	Use assessment and feedback to create and refine solution(s). Produce: topography of site using layers of cardboard or foam core; urban plan model using common materials and forms; focus on the patterns and relationship of parts; use two different materials/colors to distinguish between new (change) and old (unchanged) objects. On-going evaluation of criteria. Provides presentation through text, movie, PowerPoint presentation to convey how plan meets criteria; short- and long-range planning of site.
Create and Implement Solutions	Exhibit in school with other grade-level classes.	Make presentation during open-house; record responses via video.	Exhibit in public space outside of school; make public presentation.	Make a presentation to city leaders, civil engineers, urban planners and stakeholders.
Test Solutions and Evaluate, Reflect, Redefine, and Rework	Discuss feedback in relationship to urban plan.	Discuss feedback in relationship to urban plan; note feedback, and describe possible revisions of urban plan.	Receive feedback; record responses via video; discuss feedback in relationship to urban plan; document revisions within display of urban plan.	Receive feedback; record responses via video; discuss feedback in relationship to urban plan; document revisions within display of urban plan; make revisions in urban model.

Wisconsin's Model of Academic Standards	Primary.	Intermediate	Middle School	High School.
Art and Design Education	Knowing… A: Visual Knowledge Doing… C: Visual Design and Production D: Practical Applications Communicating… E: Visual Communication and Expression F: Visual Media and Technology Thinking… H: Visual Thinking Creating… K: Making Connections	Knowing… A: Visual Knowledge B: Art History, Citizenship, and Environment Doing… C: Visual Design and Production D: Practical Applications Communicating… E: Visual Communication and Expression F: Visual Media and Technology Thinking… H: Visual Thinking Understanding… J: Cultural and Aesthetic Understanding Creating… K: Making Connections	Knowing… A: Visual Knowledge B: Art History, Citizenship, and Environment Doing… C: Visual Design and Production D: Practical Applications Communicating… E: Visual Communication and Expression F: Visual Media and Technology Thinking… G: Art Criticism H: Visual Thinking Understanding… J: Cultural and Aesthetic Understanding Creating… K: Making Connections	Knowing… A: Visual Knowledge B: Art History, Citizenship, and Environment Doing… C: Visual Design and Production D: Practical Applications Communicating… E: Visual Communication and Expression F: Visual Media and Technology Thinking… G: Art Criticism H: Visual Thinking Understanding… J: Cultural and Aesthetic Understanding Creating… K: Making Connections

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Visual Culture (Everyday Art)

4

Introduction
Visual Culture Defined
Visual Culture in the World
Goals for the Study of Visual Culture
Sample Visual Culture Unit Plan

Introduction

This chapter begins with a definition of the term visual culture as used in this guide. Examples of visual culture in the world and goals for instruction in this area follow. The chapter closes with sample unit plans for a variety of grade levels.

Visual Culture Defined

Visual Culture is a loose term for the study of visual phenomena that are a pervasive part of everyday life for cultural groups within the United States and for other cultures of the world. Visual culture has traditionally been excluded from the study of art because it did not fit neatly into rigid definitions of the fine arts. Visual culture is identified as an important component of this guide in an attempt to counter a traditionally more limited conception of visual learning found in art education programs of the past.

Visual culture implies a focus on the politics, economics, and ethics of image creation and manipulation.

Visual culture has a specific connotation that is more than just studying the material culture of a society. Visual culture implies a focus on the politics, economics, and ethics of image creation and manipulation. It addresses social issues such as who sees and who is seen? Who has access to images and objects? Whose images and objects are disseminated? Who is empowered by dissemination of images and objects? What are the conditions of the production and consumption of visual images and objects?

Visual culture often includes images and objects of a practical or utilitarian nature as well as those considered fine art. Quilting, for example, is not commonly considered either a fine art or design. Recent exhibitions on a number of continents, however, show remarkably innovative and cutting-edge developments in this visual culture that can arguably meet criteria as a fine art, design, or cultural art form.

Other subjects for the study of visual culture might include such diverse visual forms as comic books, science fiction illustrations, graphic novels, black-velvet painting, wildlife art, cartoons, television, duck decoys, woven baskets, whirli-gigs, masks, T-shirt designs, molas, and Disney characters. Those accustomed to a fine arts focus will say that some of these are simply not art.

This guide agrees that many of these images should not be classified as fine art but then goes on to ask what, then, are they? Rather than simply dismissing them as "not art," school curricula should explore the relationships–differences and similarities–between examples of visual culture, design, visual communication, and fine art.

Opponents to the study of visual culture often cite two major objections. One is that these forms are part of mass or popular culture and, therefore, not appropriate topics for serious scholarship. The other is that the methods of study often involve research, writing, and discussion, which are not the main mission of a studio-based art program. However, programs should not ignore these important visual forms. Many ways to address issues and ideas in visual culture exist that meet rigorous learning standards and help students become better informed, more tolerant citizens.

In most cases the traditional studio approach is probably not an ideal approach to these topics. Integrative approaches, including critical theory, aesthetics, ethics, and cultural studies, yield better student understanding. Teachers who have had some coursework in sociology or anthropology and teachers interested in multicultural values are especially likely to appreciate the role of visual culture in a comprehensive visual education program. June King McFee's *Art, Culture, and Environment* (1977) is a standard source for inclusion of psychological, sociological, and anthropological ideas in art education, as is Vincent Lanier's *The Arts We See* (1982).

Visual Culture in the World

Two major American works of art that provide good examples of the dichotomy between the traditional study of fine arts and the study of visual culture are Mount Rushmore and the Statue of Liberty. While these works are of great importance and beauty, neither they nor their creators, Gutzon Borglum and Frederic Auguste Bartholdi, are likely to be found in art history books because their significance is regarded as cultural rather than artistic.

Another example of a popular cultural icon that does not appear in art history books is Smokey Bear. Smokey Bear was created in 1944 by Albert Staehle, an artist for the U.S. Forest Service. Two years later Smokey was redesigned by artist Rudy Wendelin to make him appear friendlier. Wendelin removed Smokey's claws and shortened his nose to make him look less intimidating. Images of Smokey Bear, early or late, are unlikely to be viewed as fine art, yet Smokey Bear has become a significant cultural icon.

Cultural icons such as Mount Rushmore, the Statue of Liberty and, even, Smokey Bear provide opportunities for students to practice art and design history, criticism, aesthetics, production, and discovery. Students can benefit from studying the history of these examples of visual culture. Questions such as, "When did they first appear? Who created them? Why do they look the way they do? What ideas were tried and rejected?" can lead to improved understanding of the decisions artists make while creating products of many kinds.

Worthwhile investigations could be made of other visual icons – including not only culturally significant sculptures, buildings, or characters, but those images used in animation, images created to sell products or promote political viewpoints, images made largely for decorative purposes, decorative but utilitarian objects, images, or objects associated with religious activity, etc. Questions such as, "Why did the artist choose this particular medium? In what ways did he or she alter the image to make a point? How was color used to make this work more effective?" parallel the kinds of questions asked about other kinds of art.

Popular Art

Neither the term popular art, nor descriptors such as mass media should suggest hard and fast categories. These terms are a way to describe the range of material that educators should explore when designing an art and design education program. *Popular arts* are often not recognized as part of the studio arts or the design arts, though they are forms common to mainstream culture. Illustrator Norman Rockwell, for example, was well-liked by a large segment of the American public, but his work is not considered fine art. This is not a reflection of its quality but a reference to different expectations and criteria for studio art. Furthermore, Rockwell's popularity so transcended his role as a magazine illustrator that he won a place as a beloved visual storyteller, and both Rockwell and his work became icons of American cultural consciousness.

The work of Walt Disney similarly eludes the boundaries of the traditional studio or design arts. Disney, in particular, exemplifies the impact of an

individual aware of the potential of combining many fields. Animation, city design, urban engineering, architecture, child and human psychology, digital art, sociology, history, anthropology, and education are but a few disciplines he integrated to bring people the world of Disney.

Students should be introduced to systematic study of the popular arts because students are often unaware of how popular arts influence the way people think and act. Many, for example, do not think they are influenced by advertisements. The popular arts reflect and influence people's beliefs, attitudes, and desires. Without examining these powerful influences, people limit their capacity for self-awareness and social development.

Mass Media

Mass media is sometimes not addressed in art because it is so ubiquitous. If, as Ellen Dissanayake (1988) indicates, the arts are an effort to make things special, educators sometimes feel that mass media is too "common" or not special enough. There is, however, mass media that is considered to be "special." Addy Awards are annually presented to the best examples of advertising; Oscars go to exemplary achievement in movies; and Emmys are awarded for excellence in television programming.

Students should have opportunities to examine visual aspects of mass media and its impact on people and society. Comic books, magazines, television, movies, and other mass media is an integral part of the visual environment for students. Failure to acknowledge these powerful visual media in art classes can lead some students to think that art and aesthetics are only about things in museums. This perception may lead some to view art education as irrelevant to their lives and leave them ill-equipped to deal with the powerful influences mass media has on society.

Folk and Traditional Art

Teachers need to make students aware that visual learning includes the folk and traditional arts of their parents, grandparents, and neighbors. People sometimes forget that everyday objects and designs can be as valuable as works of art if they are well designed and well crafted. Teachers need to present the folk arts as living arts. Traditional arts thrive today. Dancers, fiddlers, basket weavers, cooks, and storytellers are all carrying on traditions of particular families, communities, and regions. Each craftsperson brings his or her unique skills and personality and, in the traditions of craftspeople before him or her, creates objects, songs, dances, drama, or stories.

The folk and traditional arts are those that develop over time within a certain region or group of people and are transmitted from generation to generation, grandmother to granddaughter, or master teacher to apprentice. Folk artists often learn without formal training in schools. Great skill and long years of study and practice, however, are necessary to become a good folk artist.

Because folk artists have frequently been persons of little wealth, they often use materials commonly available in their area. Carved wooden spoons, hand-painted furniture, hand-hewn tables, and quilts are examples of objects used

daily that people throughout the years have transformed into objects of beauty. Combining beauty with utility makes folk arts one of the design arts, but following a traditional way of carving, painting, or quilting gives the folk art its unique distinction.

How many folk arts can students name? Embroidery on blouses, designs on Easter eggs, appliqué on Ho-Chunk Indian skirts, woven patterns on baskets, iron candelabra bent by blacksmiths—almost anything made by hand, when beautifully done and part of a long-standing tradition, becomes folk art. Every culture has its own folk art. Students may name Menomonie Indian woodcarving, Norwegian rosemaling, or Mexican weaving. Few students are aware, however, of the intricacies of the rules of the craft, the many "schools" created by family, tribal, and geographic variations, or that people have jobs as professional folklorists.

Some sources of information about folk and traditional arts are the Wisconsin Arts Board's folk and ethnic arts coordinator, Folklore Village in Dodgeville, Cedarburg Cultural Center, Lac du Flambeau Cultural Center and Museum, and the Wisconsin State Historical Society. The American Craft Museum in New York has a catalog, digital images, and video service with resources on a variety of clay, fiber, glass, metal, mixed media, paper, and woodcrafts.

Celebration Art and Design

Celebrations in one's own and other cultures provide exciting and festive entrees into the study of cultures that capture students' imaginations and provide opportunities to integrate a variety of learning activities. Students should realize, however, that festivals are special occasions and do not represent the everyday life of the people. Children from other cultures, for example, sometimes think that Native Americans wear feathers and deerskin clothing and are surprised to see them in blue jeans and tennis shoes. Students should also be aware that ceremonial clothing, when worn by a person from that culture, is not a "costume" that people might wear for a play or costume party, any more than a police officer's uniform or a judge's robes are costumes.

Holiday celebrations are part of annual school observances, but in most cases the decorations and activities have more social than artistic merit. Because the decorations are made from art materials and involve art-like processes, it is easy to see how people come to think of these as art activities. The process of having students create look-alike images under the direction of a teacher following recipe-like instructions can actually be counterproductive to learning in art. Since the results of such projects are predetermined by adult standards, they undermine the student's self-confidence and personal creativity. The projects themselves are often of questionable aesthetic quality and focus on surface features that reinforce stereotypes and clichés. These are characteristics that run counter to the goals of art education.

World Art and Design

Art has many different traditions and standards not easily translatable into terms and criteria of European and European-American cultural traditions. Artworks from Africa, South America, Asia, the Middle East, and other parts of the world have traditions, symbols, meanings, and purposes different from those of Western European culture. Learning about those differences is essential to understanding the significance and meaning of these art forms. One should realize that too often the word "art" in the United States is used as a synonym for "Western art."

It is presumptuous to think that one can "understand" another culture, or its art, but people can achieve a greater level of awareness through thoughtful study and reflection. In this endeavor, teachers and students become co-learners, exploring rich new worlds together with open, receptive minds. One-shot projects that touch on the surface characteristics of the art of another culture may actually create more misunderstanding than real learning. Students should learn that they cannot "do Japanese art" unless they are Japanese. Dressing up in "costumes" of other cultures or doing U.S. versions of artwork from other cultures may be offensive to those cultures. Imagine students from the Middle East dressing up as cowboys and Indians to learn about the United States. If the time or resources for a careful, reflective study of art of another culture is not available, it may be better to not do it. A student, because of his

or her heritage, travel experience, or personal interest, may choose to focus on learning about the art of another culture in some depth over an extended period of time. That student could become the local "expert" and be a valuable resource for others.

Native American Art and Design

The Wisconsin Educational Standards require that each school board, as part of the social studies curriculum, include instruction in the history, culture, and tribal sovereignty of the federally recognized American Indian tribes and bands located in this state at least twice in the elementary grades and at least once in the high school grades. Indian tribes located in Wisconsin include Ho-Chunk, Menominee, Oneida, Forest County Potawatomi, Stockbridge-Munsee, and several bands of the Lake Superior Ojibwe including the Lac du Flambeau Chippewa, St. Croix Chippewa, Sokaogon Chippewa, Lac Courte Oreilles Chippewa, Red Cliff Chippewa, and Bad River Chippewa.

As with all art, Native American artists express their culture in their work. In the integration of units or lessons on Native American art forms with other art, concepts dealing with the histories, cultures, and issues of sovereignty of the tribes can be introduced and discussed. Study of contemporary Native American art can be a means of exploring contemporary Native identity. Information is readily available from the Smithsonian Institution's National Museum of the American Indian and in an increasing number of publications about well-known modern and contemporary Native American artists. All students should be introduced to the significance and beauty of art forms from indigenous cultures. American Indian students, in addition, should have opportunities to practice their art and to study it academically as a part of any classroom art instruction. Tribal artists, tribal elders, and other people recognized by the tribes as knowledgeable, such as teachers who have extended experience working with Indian students, are good resources and often available for classroom presentations.

Studying indigenous art forms is a good way to help students understand aesthetics as a field of inquiry. Many tribal languages, for instance, have no distinct word for "art." American Indian cultures most often have integrated concepts of beauty, environment, and spiritualism that do not separate aesthetic perception and concepts of quality from daily living. For example, Ho-Chunk moccasin maker Margaret Hart is uncomfortable with the title "master artist." She asked the Wisconsin Arts Board folk arts coordinator, Richard March, to "Just say I'm good at making moccasins."

Native American Artists

Lucy Lewis, Maria Martinez, Nora Naranjo-Morse, Roxanne Swentzell, Fred Kabotie, Pablita Verlarde, Patrick Desjarlait, Helen Hardin, OscarHowe, Fritz Scholder, George Longfish, Kay Walkingstick, Allan Houser, Lillian Pitt, Jolene Rickard, James Luna, Horace Poolaw, Shelley Niro, Hulleah Tsinhnahjinnie, Tom Jones, Truman Lowe, Jaune Quick-to-See Smith

African-American Art and Design

Until the 1980s and ’90s, it was difficult to find published curriculum material on African-American art and artists. Exclusion of African-American artists from the record of American art history was an omission that presented an incomplete and distorted view of history. Recently publishers began producing resource materials to help educators provide a more balanced picture of art in America that includes contributions and artistic influences of African and African-American artists.

It is important to distinguish between artists working in the United States and the separate art traditions of the country of their ancestors. American minority communities have living, dynamic, internationally-acclaimed men and women who are artists in their own right. A unit on African-American art, for example, should focus on contemporary and historic African-American artists rather than on sculptures in Benin, Africa. In many cases referring to an artist as an “African-American artist” (or “woman artist,” “Indian artist,” and so on) is misleading because it appears to confine the artist’s significance and artistic influence to that group alone

African and African-American Artists

Benny Andrews, Romare Bearden, Barbara Chase-Riboud, Beauford Delaney, Aaron Douglas, Edmonia Lewis, William H. Johnson, Jacob Lawrence, Los Mailou Jones, Gordon Parks, Horace Pippin, Faith Ringgold, Augusta Savage, Betye Saar, Alison Saar, Bill Traylor, Martin Puryear, Joshua Johnston, Henry Ossawa Tanner, James Van Der Zee, John Biggers, David Hammons, Elizabeth Catlett, Sam Gilliam, Charles White, John Outerbridge, Marie Johnson Calloway, Alma Thomas

Art and Design of Latin America

Wisconsin has many Latin-American students, and their rich cultural heritage should be recognized as part of regular instruction in the arts. Their cultures have had a profound effect on the development of American art traditions. Distinct artistic traditions of Spanish speaking people include Mexican, Mexican-American, Spanish-American, Spanish, South American, and Central American. Each has its own history and set of styles.

Mexican Artists

José Guadalupe Posada, Frida Kahlo, Diego Rivera, David Alfaro Siqueiros, José Clemente Orozco, Rufino Tamayo, Manuel Álvarez Bravo, printmakers of the Taller de Gráfica Popular

Cuban Artists

Wifredo Lam, Amelia Peláez, José Bedia

Colombian Artist

Fernando Botero

Mexican-American Artists

Luis Jiménez, Ester Hernández, Yolanda López, Amalia Mesa-Bains, Judith Baca, Gronk, Las Mujeres Muralistas, The Royal Chicano Air Force

Asian-American Art and Design

Wisconsin has a growing number of Asian-American students whose cultural ancestries embody long and richly textured traditions. Japanese, Chinese, Korean, Hmong, Laotian, Cambodian, and other Asian cultures have become part of the fabric of Wisconsin's cultural quilt. Wisconsin has a sister state relationship with Chiba prefecture in Japan. There is a cooperative program to place teaching assistants from Japan in school districts. The Department of Public Instruction has an international and world languages education consultant who can provide information about resources. Kodansha Publishing Company, with offices in the United States and Tokyo, is a good source for books about Japanese art, architecture, design, culture, and aesthetics.

On page 53, the conceptual statements and consequent areas of study—history, aesthetics, criticism, production, and discovery—provide curriculum suggestions for the study of art of different traditions.

Asian American Artists

Isamu Noguchi, Ruth Asawa, Bernice Bing, Yasuo Kuniyoshi, Hung Liu, Margo Machida, Miné Okubo, Roger Shimomura, Jin Soo Kim, Yong Soon Min, Nam June Paik, Yoko Ono, Toshiko Takaezu, Flo Oy Wong, I.M. Pei, George Nakashima, Maya Ying Lin

Vernacular Art

Vernacular art is a term sometimes applied to individualistic work that is created outside the traditions of studio, folk, or design arts by people who usually have little formal training and are not following conventional modes of expression recognized by mainstream culture. Leslie Umberger, senior curator of exhibitions and collections at the John Michael Kohler Arts Center, Sheboygan, Wisconsin states in *Sublime Spaces & Visionary Worlds: Built Environments of Vernacular Artists*, "Music, foodways, architecture, geology, plant life – virtually any aspect of a culture – can be considered on vernacular terms. Likewise, certain creative efforts are also deemed vernacular given that they, too, express or characterize – in visual terms – nativist understandings of time and place. Often unselfconsciously, vernacular artists draw on the vocabularies of their personal experiences, visions, histories, and beliefs." The Wisconsin Concrete Park created by Fred Smith in Phillips, Wisconsin, which has dozens of full-scale concrete representations of lumberjacks, oxen, muskies, and horse-drawn wagons decorated with shards of imbedded glass, is considered an example of vernacular art. Other Wisconsin art environments include Prairie Moon, Cochrane; Dr. Evermor's Sculpture Park, Baraboo; Grandview, Hollandale; and The Painted Forest, Valton. Another Wisconsin example of vernacular art is the unique work done by African-American artist Simon Sparrow, who paints and glues found objects to wood panels. Students should be exposed to vernacular artists and art environments because they are part of the rich texture of Wisconsin's culture. The John Michael Kohler Arts Center, Sheboygan, Wisconsin, and the Kohler Foundation, Inc. are known for the extraordinary amount of effort and funds they have provided for the conservation of vernacular art. They have shown unique and loyal support to vernacular artists in Wisconsin, nationally, and internationally. They have been essential in the rescue of many art environments.

Wisconsin Vernacular Artists

Hope Atkinson, Prophet William Blackmon, Sid Boyum, Eugene von Bruenchenhein, Norbert Cox, Nick Engelbert, Tom Every (a.k.a. Dr. Evermor), Ernest Hüpeden, Mollie Jenson, Ellis Nelson, Mary Nohl, Frank Oebser, Rudy Rotter, Herman Rusch, Fred Smith, Simon Sparrow, James Tellen, Carter Todd, Mona Webb, Paul and Matilda Wegner, Fr. Mathias Wernerus, Albert Zahn

Goals for the Study of Visual Culture

Valuable goals for the study of visual culture include developing a sense of history, an awareness of one's own culture, an awareness of other cultures, an awareness of cultural transmission, media literacy, and the knowledge and skills to create a future that works. Each of these areas of inquiry is discussed briefly below.

A Sense of History

Students find it difficult to see themselves as a part of the ongoing progress of history and how history is constructed. Students often think of history only as facts about something that happened long ago. In the study of visual culture, one goal is to have students understand that history is an ongoing process and that the accuracy and value of any historic record depends on the people who record it.

One way to help students understand history would be to provide opportunities to write history. They can respond to questions such as, "What is the oldest building or structure in town and what is its history?" "What is the most beautiful place in the community and how did it get to be like that?" or "When and where did the style of wearing baseball caps indoors (often backwards) and purposely putting tears and cuts in blue jeans develop, and how long will these remain as viable styles?"

In the study of visual culture, one goal is to have students understand that history is an ongoing process and that the accuracy and value of any historic record depends on the people who record it.

Awareness of One's Own Culture

People often think that culture is something that other people have. It is often easier to characterize (or stereotype) familiar elements of Chinese, Navajo, or Nigerian cultures than it is to identify the diverse distinguishing characteristics of one's own culture. Being knowledgeable about a culture often means being able to recognize its rich diversity, contradictions, and infinitesimal detail. Being ignorant of a culture means one operates with fewer images, fewer experiences, and, often, stereotypes.

Much of a culture's heritage is embodied and communicated visually. Students should have opportunities to examine and reflect on the nature of their own visual culture. Asking recent immigrants or visitors about their perceptions of U.S. culture is one good way to start. Because of American movies, for example, some people from other countries believe that people from the United States are a violent people and that cowboys and Indians still roam the western states. From watching American television, people from other countries may come to believe that it is not safe to walk anywhere in American cities.

Awareness of Other Cultures

A readily accessible way to experience different cultures is through visual forms. One can see and examine visual forms of world cultures even without understanding their languages or traveling long distances. Often people from other cultures are one's neighbors. Students in Wisconsin's rural, suburban, and inner city classrooms speak over 137 languages in addition to English. They have valuable information about Nepali, Yoruba, Vietnamese, Turkish, Serbo-Croatian, and Somalian cultures. Students and their parents can share perspectives, artifacts, holidays, and new ideas from Laos, Mexico, Tibet, and the Pacific Islands.

Students should be taught how to use books from the library, foreign films, and television as ways to "travel." Other resources include international college students and faculty and cultural outreach centers.

Cultural Transmission

Students should understand how cultures are transmitted from one place to another and one generation to another. Students should be provided opportunities to learn that the world looks the way it does because people who lived before designed it that way and that people today can design the way the world will look in the future. They should come to feel empowered to shape the future and be critical consumers. Teachers and students can use "cultures" within the school to demonstrate cultural transmission. A classmate with physical handicaps can help students see the world differently and sensitize them to relationships between environment and design. What areas of the school are inaccessible to students in wheelchairs? What activities are difficult for these students to participate in? Students can redesign and rearrange spaces in the classroom, cafeteria, and playground to accommodate these differences.

Following through on design activities with actual proposals and presentations to the school board, city council, or an architectural firm will drive home the lesson that skills in the arts enable us to change the way we live. Students should constantly be challenged to design a future that works.

Media Literacy

Media literacy is the ability to access, analyze, evaluate, and produce communication in a variety of forms. It is a part of study in both visual communications and visual culture. A citizenry capable of critical thinking about media is necessary for the health of its economy, democracy, and culture. It is increasingly important that students become active critical viewers, users, and makers of both the media content and technology that surrounds them. Students should be aware of the power of media to manipulate viewers, listeners, readers, consumers, and the public. They should examine the social, cultural, economic, and aesthetic aspects of media arts.

Perhaps the most important task for art education programs in schools is to work across the curriculum to help students and teachers work together to imagine, design, and create a sustainable future for the people of the earth, one that will provide a quality existence all would like to achieve.

Students should not become experts at producing media simply to manipulate other people. The goals of media literacy include helping students develop critical viewing skills, visual literacy, and critical thinking about the way the media's use of images influences their attitudes and behavior in motion pictures, television, illustrated books, music videos, digital media, and the news. Some key concepts and questions in media literacy revolve around the construction of messages in the media; the purposes of media in the economic marketplace; the effect of media on viewers; and the aesthetic formats, constructions, and conventions of media. The National Telemedia Council, based in Madison, Wisconsin, and a leading promoter of media literacy for children through educators, parents, and media professionals, is a good source of information about media literacy.

One of the central issues common to Visual Culture and Media Literacy is understanding how we arrive at the meanings we do, by identifying such influences as our own cultural background, the context in which we read the images, and the experiences that we bring to the reading. What is also central to both Visual Culture and Media Literacy is that media texts can also convey implied meaning and reinforce dominant ideologies.

Designing a Future that Works

Few movies, books, or articles present a viable image of a future in which people would want to live. Most visions of the future depicted in literature and film are of dystopias rather than utopias. Many people have a sense of futility, imagining that there will be too many restrictions on their rights and freedoms and too much crowding, violence, pollution, and boredom. If people cannot even imagine how life on earth could work, it will be difficult to construct that life. Perhaps the most important task for art education programs in schools is to work across the curriculum to help students and teachers work together to imagine, design, and create a sustainable future for the people of the earth, one that will provide a quality of existence all would like to achieve.

Sample Visual Culture Unit Plan

Sample unit plans for visual culture in the area of vernacular art follow.

VERNACULAR ART

Problem: Develop a public sculpture that uses natural and/or industrial materials that honors local people and their activities informed by local people, their knowledge, and skills.

Key Words: Vernacular art, Outsider art, Folk Art, Self-taught Artists

Vernacular art is a form of art and outdoor constructions made by untrained artists who do not recognize themselves as artists, sometimes referred to as outsider art, self-taught art, or naïve art.

Assessment Rubric:

Design Process	Primary	Intermediate	Middle School	High School
Identify and Define Problem	Each child develops a sculpture that uses natural and/or industrial materials that honors local people and their activities informed by common people, their knowledge and skills.	Small groups develop a public sculpture that uses natural and/or industrial materials that honors local people and their activities informed by common people, their knowledge and skills.	Classes develop a public sculpture that uses natural and/or industrial materials that honors local people and their activities informed by common people, their knowledge and skills.	Class develops a public sculpture that uses natural and/or industrial materials that honors local people and their activities informed by common people, their knowledge and skills.
Brainstorm, Research, and Generate Ideas	Investigate materials and possible themes. Vernacular artists. Consider different themes and importance; construct lists and categories of information.	Investigate materials (natural, industrial) that can be repurposed. Vernacular artist and different forms to determine themes. Consider different themes and importance; construct lists and categories of information.	Investigate materials (natural, industrial) that can be repurposed. Role of vernacular art in society and cultural transmission; themes and social connections. Conceptually map themes.	Consult English, Social Studies, and Tech Departments for local knowledge keepers who could assist in skills. Role of vernacular artists and specialized skill and ideation; themes, community connections Consider different themes and importance; construct lists and categories of information.
Determine Criteria for Solutions	Choice of materials that can be used for structure and decoration; story.	Choice of materials that can be used for structure and decoration. Materials reinforce theme.	Choice of materials that can be used for structure and decoration; each object relates to the overall theme. Materials reinforce theme; theme connects with school community.	Choice of materials that can be used for structure and decoration; each object relates to the overall theme; Materials reinforce theme; theme connects with community. Sculpture has impact on community as a social connection.
Explore Possible Solutions	Test material in original state for specific use; attachment of parts needs. Assess.	Test material in original state, alter it, or combine materials; skills and tools to alter forms; attachment needs. Consider relationship of materials, subject matter and theme.	Test material in original state, alter it, or combine materials; skills and tools to alter forms; attachment needs. Rapid prototyping of sculptural forms within model of site. Seek approval from appropriate person for installation. Consider relationship of materials, subject, and theme.	Test material in original state, alter them, or combine materials; skills and tools to alter forms; attachment needs and installation needs. Rapid prototyping of sculptural forms within model of site. Evaluate structure, theme, and site. Seek approval from appropriate person for installation.
Select Appropriate Solutions	Determine which materials and attachment solutions work.	Determine which materials and attachment solutions work. Determine sequence of sculpture and determine specific jobs within group.	Determine which materials and attachment solutions work. Determine sequence of sculpture and determine specific jobs within groups; group communication and planning.	Determine which materials and attachment solutions work. Determine sequence of sculpture and determine specific jobs within group. Create work-flow chart.

Create and Implement Solutions	Create individual artwork.	Determine group and individual work. Create group artwork. Install in school.	Create group work; assess linkage between groups; make revisions. Install in school grounds or other public space.	Create group work; assess linkage between groups; make revisions. Install in school grounds or other public space.
Test Solutions and Evaluate, Reflect, Redefine, and Rework	Assess artwork in relationship to storytelling ability to specific age groups.	Assess artwork in relationship to storytelling ability to specific age groups. Develop a three-item questionnaire that visitors respond to.	Assess artwork in relationship to storytelling ability to specific age groups. Conduct interviews with visitors and determine how they respond, understand, and value the exhibit.	Assess artwork in relationship to storytelling ability to specific age groups. Conduct and video record interviews with visitors and determine how they respond, understand, and value the exhibit. Create a video that uses public responses to accompany the sculpture.

Wisconsin's Model Academic Standards	**Primary.**	**Intermediate**	**Middle School**	**High School.**
Art and Design Education	Knowing… A: Visual Memory and Knowledge B: Art History, Citizenship, and Environment Doing… C: Visual Production D: Practical Applications Communicating… E: Visual Expression F: Technology Thinking… H: Visual Thinking Understanding… I: Personal and Social Development J: Cultural and Aesthetic Understanding Creating… K: Making Connections L: Visual Imagination	Knowing… A: Visual Knowledge B: Art History, Citizenship, and Environment Doing… C: Visual Production D: Practical Applications Communicating… E: Visual Expression F: Visual Media and Technology Thinking… G: Art Criticism H: Visual Thinking Understanding… I: Personal and Social Development J: Cultural and Aesthetic Understanding Creating… K: Making Connections L: Visual Imagination	Knowing… A: Visual Memory and Knowledge B: Art History, Citizenship, and Environment Doing… C: Visual Production D: Practical Applications Communicating… E: Visual Expression F: Visual Media and Technology Thinking… G: Art Criticism H: Visual Thinking Understanding… I: Personal and Social Development J: Cultural and Aesthetic Understanding Creating… K: Making Connections L: Visual Imagination	Knowing… A: Visual Memory and Knowledge B: Art History, Citizenship, and Environment Doing… C: Visual Design and Production D: Practical Applications Communicating… E: Visual Communication and Expression F: Visual Media and Technology Thinking… G: Art Criticism H: Visual Thinking Understanding… I: Personal and Social Development J: Cultural and Aesthetic Understanding Creating… K: Making Connections L: Visual Imagination

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Bb
Aa

Fine Art (Professional Art)

5

Introduction
Fine Art Defined
Fine Art in the World
Sample Fine Art Unit Plan

Fine art is a term that has traditionally been used to define the study of art focused on areas of classic studio training- drawing, painting, printmaking, ceramics, and sculpture.

Introduction

The goal of this chapter is to more clearly define the term fine art and discuss its role in the education of children. The value and relevancy of studio training and its ability to increase students' capacity for observation and reflection are considered. Broader goals for instruction in fine art are included in this section of the guide, and sample lesson plans are shared.

Fine Art Defined

What makes fine art fine? What makes fine art different from vernacular art? Is it the artists' training, the way materials are handled, viewpoint or interpretation, the subject matter or concept, the response of the audience, or popular acceptance of the artwork?

The purpose of fine art is to expand on a shared visual language. Artists are creating works to commemorate important events, tell stories, depict religious events or icons, make social commentary or simply create something beautiful. Fine art begins as an idea in the mind of the artist – a mental abstraction, a vision seen through the "mind's eye." The idea then goes through a process of transformation from mental vision into physical object or experience that can be perceived through the senses and the intellect of others. The power of fine art comes from its ability to take a conceptual idea, interpreting that idea, and then turn it into a form that brings out an emotional response in the viewer.

Fine art is a term that has traditionally been used to define the study of art focused on areas of classic studio training – drawing, painting, printmaking, ceramics, and sculpture. The breadth of what fine art encompasses continues to change as the media that artists incorporate into their work evolves. At one time only the classic techniques of painting and sculpture were considered fine art. Unthinkable over one hundred and fifty years ago, photography and film are now considered to be members of the fine art pantheon.

What is fine art? Historically, books like Janson's *History of Art* and Gardner's *Art Through the Ages* have been templates for teaching this subject over the years. From this perspective, fine art includes only works whose creator began with the intent of creating fine art, that were made by human hands, that display the finest skill or technique, and that leaves the viewer uplifted or enlightened. This is the fine art found in museums, galleries, and professional artists' studios.

The broader scope of what is considered fine art is expanding as artists explore new materials, techniques, and processes.

In the educational setting, great works of fine art are used to teach art history and provide exemplars for the highest forms of creativity, imagination, and critical thinking. They serve as inspiration for students learning to create and expand their creative knowledge. In some cases students are encouraged to solve the same problems faced by historically significant artists or be influenced by their creative accomplishments.

Fine Art in the World

In the historical sense, fine art is often thought to be the highest expression of past or recent cultures. It often represents the highest ideals that a culture puts forward and is made using artistic techniques and technology available during its creation. These works endure because of the high value placed on them by succeeding generations of viewers – often for hundreds, even thousands of years. The study of these works leads us to better understand the society in which they were created, the tools available to artists of that era and, most important, enriches our own culture. For that reason, the study of art history and aesthetics maintain their high value in education. Studio arts classes, in which students create art in traditional forms of painting, sculpture, ceramics, textiles, art metal, etc., remain relevant and meaningful.

The broader scope of what is considered fine art is expanding as artists explore new materials, techniques, and processes. Art forms such as digital photography, film, and video now find themselves as staples in exhibitions in art museums as well as in the study of art history. Students and their teachers in the classroom and beyond are embracing the study of these cutting edge art forms.

Two-Dimensional Art Forms

Two-dimensional media are common forms of artistic expression in school art programs. Techniques of perspective are used to create the illusion of depth on a two-dimensional surface. The ability to think and communicate in two dimensions is essential in tasks as diverse as mapmaking, graphing, architecture, signage, medical illustration, marketing, and publishing.

Drawing

Drawing is the foundation of the visual arts as a creative thinking and communication tool. Drawing employs a variety of symbol systems such as line, shape, value, texture, and space that are a part of the basic skills for all students. Students communicate complex ideas through visual forms and have opportunities to learn about the qualities of a variety of drawing tools and materials such as graphite pencils, charcoal, crayons, pastels, colored pencils, and pen and ink to express these concepts effectively. Students are able to create the illusion of form through highlight, light tone, base tone, reflected light, and cast shadows. They create the illusion of space through perspective techniques and processes.

Painting

Painting is an opportunity for students to explore color, texture and painting processes, and techniques in art and the environment. Students explore a variety of transparent and opaque painting media using a basic understanding of color theory, expressive use of color, brushwork techniques, and paint application. They are able to differentiate and mix colors, create the illusion of deep space with color, model forms, and create aerial perspective. They also learn painting techniques such as dry brush, blending, wet-on-dry, and impasto. Combining paint with other media such as collage and a variety of supports such as paper, hardboard, and canvas is also investigated by students.

Printmaking

Printmaking provides opportunities to produce more than one copy of an original work of art. Students understand the processes, techniques, and tools used in a variety of printmaking forms such as collagraphs, mono-prints, serigraphy, etchings, lithography, and woodcuts. They are able to recognize the features of each type of print media and to distinguish between forms such as "print," "copy," "poster," and "reproduction." Students produce multiples or a series of prints in a given process.

Photography

Darkroom photography is a traditional form of printmaking that involves the focused interaction of light and chemicals. Students understand the operation of cameras (shutter speed, aperture, f-stop) and how photographs are composed (focus, depth of field, framing). They also know the processes by which photographic prints are produced (developing, printing, fixing). They know the principles of good photocomposition including aspect ratio, camera angle, contrast, light control, and color balance.

Digital photography is the current art form used by professionals in the field. This type of photography uses an array of light sensitive sensors to capture the image focused on the lens of the camera. The image is then stored as a digital file to be manipulated on a computer or printed. An advantage to digital photography is that it doesn't use chemical processing, so schools do not need a darkroom. It is user friendly and economical.

High school students are able to use a fully adjustable single-lens reflex or digital camera to take well-composed photographs. They are familiar with the work and influence of key photographers, such as Ansel Adams, Diane Arbus, Margaret Bourke-White, Henri Cartier-Bresson, Anne Liebowitz, Duane Michaels, Edward Steichen, Alfred Steiglitz, Jerry Uehlsmann, Edward Weston, and Gary Winogrand. Terry Barrett's *Criticizing Photographs* provides examples of how to approach fine art images from an interpretive perspective.

Three-Dimensional Art Forms

Students should have opportunities to develop their abilities to see and communicate in three-dimensional forms. Three-dimensional visualization is a special form of intelligence. This ability is essential in sculpture, architecture, product design, environmental design, landscape architecture, and urban planning. Like reading and writing, the ability to visualize and communicate in three dimensions is a general skill applicable to tasks as diverse as computer modeling, astronomy, physics, geometry, and engineering.

Sculpture

Sculpture is the generic term for most three-dimensional art forms. Students learn to see and communicate three-dimensionally as part of mental development. So much of their experience is in the two-dimensional art forms that students need more opportunities to learn how to work in "high relief" and "in the round." Without instruction in these areas, students will continue to rely heavily on two-dimensional conventions. Beginning students working on a mask project, for example, tend to paint two-dimensional features rather than to build up high relief areas. The degree of three-dimensionality commonly seen in African and Indonesian art provides good examples. Sculpture materials commonly used in schools include wood, plastic, papier-mâché, foam, foam core, cardboard, metal, glass, and found objects.

Ceramics

Ceramics is a popular introduction to three-dimensional art forms because the clay is easily shaped and provides comparatively fast and easy manipulation of three-dimensional forms. Students have opportunities to explore the three-dimensional potential of clay and the variety of surface textures achievable in this highly malleable medium. They know about the influences of artists such as ceramic artist Peter Voulkos, American Indian potter Lucy Lewis, and the Japanese traditions in which villages carry on individual ceramic styles.

Art Metal

Art metal, sometimes referred to as jewelry design, gives students a chance to experience working with sculptural materials on a small scale. In this way they can explore sculptural concepts in a personal space. They also learn elements of craftsmanship as they strive to control the quality of the shapes, forms, and textures in their work. Students have opportunities to experience the qualities of metal fabrication and the basic principles of metal casting. They will be familiar with Indonesian and Indian metal traditions.

Crafts

Crafts is a general term for a variety of art forms using materials such as wood, glass, and fibers that sprang from utilitarian or decorative origins and have developed artistically. Woodworking, weaving, glass-blowing, and basket making have their roots in skilled trades producing useful items for everyday life. In the hands of artists, these craft forms have transcended their utilitarian

roots and achieved studio arts status. Harvey Littleton was an internationally famous glassblower from Wisconsin whose work is recognized as studio art for its innovation and aesthetic quality. Wisconsin, with its forest heritage, has several woodworkers recognized as studio artists. Frank Lloyd Wright's designs for stained-glass windows show his integration of craft forms in architecture. Many other cultures have less of a distinction between their studio arts and crafts.

Installations

New art forms are continually being developed, and "installations" are mentioned here simply to represent the development of forms of art that challenge traditional categories. An installation is a work of art that uses the space in which it is displayed as part of the work itself. Many installations merge visual art and theatre as the viewer is invited to interact with the works of art; are environmental or architectural in nature; and present social issues and blur the distinction between social commentary and art. Students have opportunities to see and discuss newer art forms to develop their tolerance and appreciation for change and growth in cultural expression.

Four-Dimensional Art Forms

Nonstatic art forms are those that actively involve the fourth dimension—time. Art forms that change over time are not looked at so much as they are watched, leading the viewer through a progression of temporal experience. Some art works such as Alexander Calder's mobiles and Yves Tanguy's surrealist works are designed to include movement as part of the visual repertoire of the work. Art forms such as film and video have movement as an integral part of their nature. They have some compositional characteristics, such as shot sequence, pacing, mood development, and scene juxtaposition, that are not as common in other art forms. Four-dimensional art forms include mobiles, performance art, film, video, animation, and some computer graphics.

Film and Video

Students know the structures and techniques of film and video production so that they are better equipped to understand how these forms influence their lives. Although they were only introduced in 1983, home video cameras have become commonplace in society. Film and video making and the study of film and video involve the use of technical and structural elements and different levels of meaning. These vary according to the genre or type of film, such as horror, animation, science fiction, love story, western, propaganda, documentary, musical, comedy, or war. Students know the technical and structural elements of video, which include the shot, camera angle, lighting, color, sound, and structure.

Performance Art

Performance art is a hybrid art form that can be a combination of visual art, theatre, dance, movement, social interaction, music, comedy, and writing. It challenges traditional notions of frame, space, and medium in the visual arts by causing viewers or participants to question where and when the work of art begins and ends, and whether or not it is visual art. Performance artists Laurie Anderson and Blue Man Group's use of multimedia, music, theatre, and social comment in performance art pieces exemplifies this art form.

Digital Media

The advent of computers introduced digital media in which images are converted into digital information that can be stored, transmitted, and altered in ways not possible with conventional media. Computer graphics, quick-time videos, and digital photography present creative processes never before available. Digital images can be edited, morphed, combined, and distributed in unique ways that virtually create new art forms.

Sample Fine Art Unit Plan

A sample fine art unit plan on creating a portrait follows.

Fine Art – Portrait

Problem: Develop a portrait that has a significant impact on the pupil-artist and/or viewer at a personal, group, society, or global level.

Keywords: Portrait, portrait gallery, portrait museum, photographic portraits, portrait(s) of …

Assessment Rubric:

Design Process	Primary	Intermediate	Middle School	High School
Identify and Define Problem	Develop a portrait that has a significant importance to the pupil.	Develop a portrait that has a significant impact on the pupil concerning social or cultural interactions.	Develop a portrait that has a significant impact on the pupil and larger audiences concerning a personal, group, social, or cultural interaction.	Develop a portrait that has a significant impact on the pupil and larger audiences concerning emotional and psychological aspect of personal, group, social, or cultural interaction.
Brainstorm, Research, and Generate Ideas	How portraits are used at the personal level to tell a story about the person and their context.	How portraits are used at the personal level to tell a story about the person and their condition. How different cultures use images of people to convey social status and conventions. How materials are used to convey story telling and culture.	How portraits are used –personal level to tell a story about the person and actions; different cultures use images to convey social status, gender, identity; construction of self and public images. How materials convey emotive, cultural and social status.	How portraits are used – historical and cultural context; the person and emotional condition of exterior and interior context; impact of media in construction of self and identity; social injustice. How materials convey social, political, cultural, and metaphoric meaning.
Determine Criteria for Solutions	Choose individual; describe character and story.	Choose individual; determine character attributes and context; interactions. Media emphasizes story and context.	Choose individual; determine character attributes, narrative and social context; development of identity at a personal to global level. Media to intensify narrative.	Choose individual; describe character attributes, narrative and social context. Development of identity at a personal to global level through stylistic choice. Media to intensify narrative.
Explore Possible Solutions	Test media. Understand parts of face and expression.	Choose and test how media and materials work; determine best fit for story and character development. Understand facial features and how they change based upon context.	Test media and materials. Produce rapid illustration of narrative through stylistic and media experimentation. Understand facial proportions and distortion for meaning.	Test media and materials. Produce rapid illustration of narrative through stylistic and media experimentation. Understanding role of proportions to representation through abstraction or variations of representation.
Select Appropriate Solutions	Tell story to peers; evaluate story by peers.	Storyboard artwork with image and words. Evaluate storyboard and material choices by peers or younger students.	Storyboard artwork with images and words. Evaluate storyboard and material choices by peers or younger students.	Storyboard artwork with words and images. Evaluate storyboard and material choices by Art or English class peers.
Create and Implement Solutions	Apply feedback to final artwork. Make final artwork/object.	Apply feedback to final artwork. Make final artwork/object.	Apply feedback to final artwork. Make final artwork/object.	Apply feedback to final artwork. Make final artwork/ object.

Test Solutions and Evaluate, Reflect, Redefine, and Rework	Use artwork in a public reading and discussion of story, characters and message. Discuss how the art is effective.	Test artwork with younger age group; determine aspects of the story, artwork and message; clear or unclear.	Test artwork with peer age group; determine what aspects of the story, artworks, and message are not clear. How does the art and narrative affect peer thinking? Rework artwork for clarity & impact. Display in public space of school, library, or community.	Test artwork with peer age group; determine what aspects of the story, artwork and message are not clear. How does the art and narrative affect peer thinking? Rework artwork for clarity and impact. Display in school community as a form of interactive display enticing viewers to add their own stories parallel to each artwork.
Wisconsin's Model Academic Standards	Knowing… A: Visual Memory and Knowledge B: Art History Doing… C: Visual Production D: Practical Applications Communicating… E: Visual and Expression F: Visual Media and Technology Thinking… G: Art Criticism H: Visual Thinking Understanding… I: Personal and Social Development J: Cultural and Aesthetic Understanding Creating… K: Making Connections L: Visual Imagination	Knowing… A: Visual Memory and Knowledge B: Art History Doing… C: Visual Production D: Practical Applications Communicating… E: Visual and Expression F: Visual Media and Technology Thinking… G: Art Criticism H: Visual Thinking Understanding… I: Personal and Social Development J: Cultural and Aesthetic Understanding Creating… K: Making Connections L: Visual Imagination	Knowing… A: Visual Memory and Knowledge B: Art History Doing… C: Visual Production D: Practical Applications Communicating… E: Visual and Expression F: Visual Media and Technology Thinking… G: Art Criticism H: Visual Thinking Understanding… I: Personal and Social Development J: Cultural and Aesthetic Understanding Creating… K: Making Connections L: Visual Imagination	Knowing… A: Visual Memory and Knowledge B: Art History Doing… C: Visual Production D: Practical Applications Communicating… E: Visual and Expression F: Visual Media and Technology Thinking… G: Art Criticism H: Visual Thinking Understanding… I: Personal and Social Development J: Cultural and Aesthetic Understanding Creating… K: Making Connections L: Visual Imagination

The portrait lesson outlined above is rich in complexity as a result of applying the design process to a sequence of learning episodes within each phase of the design process. At each step of the design process, physical evidence results and is to be retained (portfolio) to assist in the assessment process. It is this body of physical evidence that testifies to significant student problem solving and learning, sound teaching practices, and strong justification for art in K-12 education.

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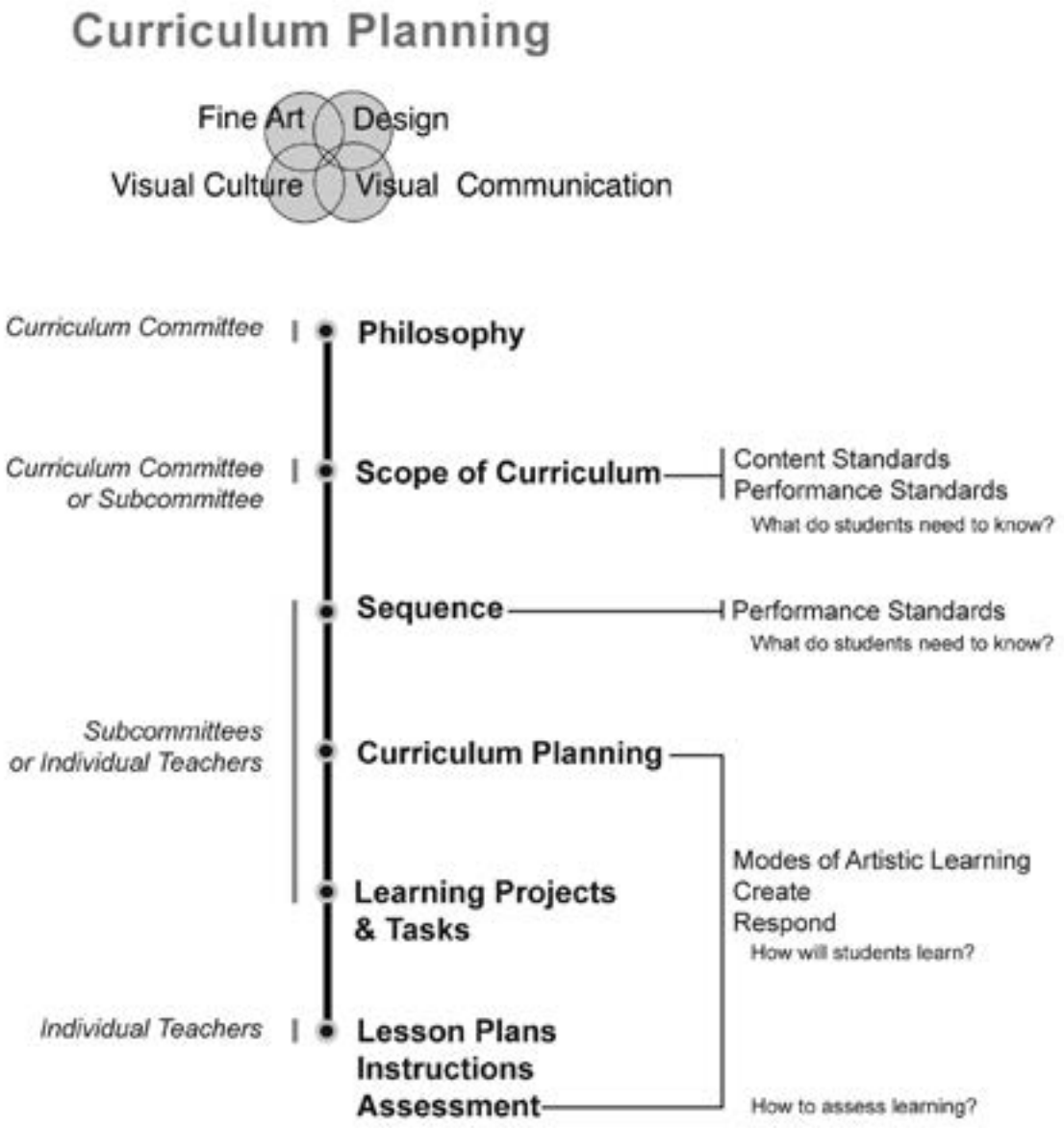

Curriculum Planning
Fine Art
Design
Visual Culture
Visual Communication
Curriculum Committee
Philosophy
Curriculum Committee or Subcommittee
Scope of Curriculum
Content Standards
Performance Standards
What do students need to know?
Sequence
Performance Standards
What do students need to know?
Subcommittees or Individual Teachers
Curriculum Planning
Learning Projects & Tasks
Modes of Artistic Learning
Create
Respond
How will students learn?
Individual Teachers
Lesson Plans
Instructions
Assessment
How to assess learning?

Curriculum Writing

6

Introduction

The Writing Process

Scope: What do Students Need to Know?

Sequence: In What Order Should Learning Occur?

Four Steps of Curriculum Writing

Introduction

Four of the first five chapters of this book have been devoted to expanding the concept of art and design to include areas not a part of traditional art curricula. With that broader area of study in mind, this chapter will suggest how this new curriculum can be documented. Because each school district is likely to have its own preferred style for creating curriculum documents, this chapter will focus on key concepts of curriculum writing, rather than a specific format.

Prior to developing the curriculum, in whatever form it might take, certain background considerations are essential. This introductory section begins by describing:

- the modes of learning in art and design on which the content and process of instruction are based;
- the components of the art and design curriculum;
- the writing team; and,
- organizational considerations related to curriculum writing.

Remaining portions of the chapter describe the writing process itself in more detail. The concepts of scope and sequence are explained in this chapter. Also discussed is the need to plan learning tasks with concepts of good instruction in mind. Finally, the chapter ends by discussing the process of piloting new curriculum.

Modes of Learning in Art and Design

Humans interact with art and design in primarily two ways—producing (creating) and responding (perceiving and reflecting)—and through these modes, students develop and demonstrate their understandings. For optimal learning, these modes must be woven throughout the content, the instruction, and the learning strategies of the curriculum.

Humans interact with art and design in primarily two ways - producing (creating) and responding (perceiving and reflecting) - and, through these modes students develop and demonstrate their understandings.

- **Creating** requires that students gather and focus their knowledge, skills, imagination, and creative abilities to create 2D or 3D art, or to solve a design problem that is uniquely expressive.
- In **responding** students analyze the art work; describe and evaluate its elements and perhaps, its emotional, historical, cultural, and/or aesthetic aspects; and if it is the student's or a peer's production, reflect on ways to improve it.

Each of these processes provides students different perspectives through which they can develop meaningful and deep understandings in art and design. They comprise a cycle of mutual influence. Understandings gained through **creating** enhance students' abilities to respond to art through a focusing of these understandings. And a well-reasoned **response** can inform the creating process. In actual practice, while engaged in the process of creating art, the artist is at all times responding to the emerging work and altering it accordingly; similarly, when the artist views a work, he or she often recreates it in his or her mind—even visualizing it with a variety of changes.

Components of the Curriculum

Philosophy:

The philosophy of the art and design program should reflect the district's educational philosophy and should describe such points as the program's beliefs/vision about art and design – its value, its role in the curriculum, and its benefit to students, both during school and throughout life.

Scope and Sequence:

The content standards provide a general overview of the body of knowledge to be addressed – the scope of the curriculum, or what students should know and be able to do. This should represent a consensus of the curriculum committee as a whole.

Performance Standards (pre-K, elementary, middle level, and high school):

These further define the scope of the curriculum and generally outline the curriculum sequence. These are exit-level learning targets for certain grades that specify the understandings and levels of achievement students are expected to attain. Subcommittees representing their respective areas and grade levels would normally write these.

Year-long Curriculum Plan:

The year-long curriculum plan is a broad map of the curriculum's sequence of learning units and projects. Subcommittees or individual teachers representing those areas and levels usually write these.

Learning Projects and Tasks:

After developing this broad view of the curriculum, individual teachers or subcommittees must flesh out the plan with a more detailed description of units, the subsequent projects, and their constituent tasks. Depending on the level of detail desired, these descriptions may take the form of unit plans. Examples of unit plans are included at the end of each chapter in chapters 2-5.

Instructional Plans:

With learning projects and tasks determined, individual teachers can develop daily/weekly, instructional (lesson) plans. These instructional plans will include instructional/assessment strategies and a further refinement of the sequence of instruction. These are for individual teacher use and are not normally included in the district's written curriculum.

Assessment:

Assessment is an important element of the curriculum writing process and will indicate how well students are progressing toward achieving intended outcomes. This guide emphasizes:

- using regularly recurring student/peer/teacher assessment (i.e., formative assessment) as an important learning tool in the art and design process;
- developing students' abilities to analyze, evaluate, and improve their own work; and
- reducing students' focus on grades.

It also promotes performance assessments, involving students in developing and using rubrics to describe proficiency levels, and embedding assessment within the learning process whenever possible. Summative assessments are also described – including their use as occasions for active student learning.

At each level of the year-long curriculum plan, inclusion of sample learning projects that reflect the standards will add clarity, guidance, and context to the district's art and design curriculum. Typically, a given project will focus on more than one standard.

Organizing the Writing Team

A district's art and design curriculum committee should represent all levels and areas of the program. In most Wisconsin districts, the entire art faculty could be included, while in larger districts a representative group would be more appropriate. Some parts of the curriculum are best addressed by the committee as a whole, while others by subcommittees representing different areas and grade levels. If possible, the committee should include an interested administrator, a board member, a classroom teacher, the media specialist, and a student and/or parent. The media specialist can be an excellent resource for maximizing the use of technology as a teaching/learning medium. Such a broadly based committee will help build support both for the curriculum

and the program itself among the various constituencies represented by the members.

The main goal must be to create a curriculum that is helpful to teachers, appropriately challenging for students, easily understood by parents, and reflective of the district's needs.

Information should be gathered concerning demographic information about the community, district, schools, population, etc.; how the community and district have changed since the last curriculum; how budgets and other economic factors influence curriculum; what patterns of academic achievement have transpired; and the perceived function of education within the community.

Organizational Considerations

Although the performance standards are set at certain grade levels, the writers of this guide understand that not all school districts are organized in the grade configurations referenced in the standards. To create a curriculum tailored to the needs and convenience of the local district, the district curriculum committee should develop performance standards at levels most useful to the teachers. The main goal must be to create a curriculum that is helpful to teachers, appropriately challenging for students, easily understood by parents, and reflective of the district's needs.

Early in the process, the group should develop work assignments based on the flow chart that begins this chapter and a timeline for completing each assignment. As the process unfolds, revisions in assignments and the timeline should be expected.

The Writing Process

This section describes important processes and factors in curriculum writing. It includes information on developing the philosophy statement, and notes about some general concerns in framing a scope and sequence. Three key questions are posed as a guide to understanding the purpose and nature of curriculum guides.

Developing the Philosophy Statement

Each district's art and design department should develop a philosophy of art and design education that is consonant with the district's philosophy, that can serve as a lodestar for aligning teaching practices, and that explains the importance of art and design in the curriculum to other educators and the public. It might begin as a series of statements detailing the faculty's beliefs regarding the importance of art and design education to society and its significance for education. This could include consideration of various points, such as art and design's role in

- culture;
- creativity;
- aesthetic awareness;
- self-realization;
- higher order thinking;

- dispositions to learn;
- lifelong learning; and
- school atmosphere.

The faculty might begin by sharing their views on these and other attributes of art and design study and coming to consensus on a series of statements that encapsulate their beliefs. The most effective and useful philosophy statements do not go into great detail, but instead provide a broad outline that can accommodate various teaching and learning approaches.

Framing the Scope and Sequence of the Curriculum

The authors of this guide realize that the unique abilities, needs, and interests of students, teachers, and administrators will determine the approach that best facilitates the writing of local curriculum. For that reason, the curriculum development process that follows in this and the next two chapters is a generic plan.

In its simplest form, the main body of the curriculum can be outlined by three questions:

- ***What do students need to know?*** The answer to this question forms the scope of the curriculum and is derived from the **content** and **performance** standards (the scope and general sequence of the curriculum) and the intended outcomes that flow from them.
- ***How will they learn?*** The long range **curriculum plan** that leads to mastery of the learning outcomes, the **sequential standards-based learning projects and tasks** of the year-long plan, and the **instructional/assessment strategies** determined provide the answer to the second question. The instructional/assessment strategies presented in this guide reflect a model of art and design education based on the metaphor of the student as a learning machine instead of an empty vessel or a product to be shaped by the teacher.
- ***How will they (and we) know they are learning, and, at the end, have learned?*** **Formative self-assessment protocols,** embedded in instruction, and **summative teacher/student assessments** of students' work contained in their portfolios are the answer to the third question. Assessment must be thoughtfully designed, for it can alter the entire learning process. The focus of instruction and student efforts will be quite different if the assessment is designed as a comfortable process to support and enhance learning rather than an activity to rank and categorize student work. This question is discussed further in the chapter on assessment.

In planning and implementing a curriculum, there are several levels of planning and outcomes. The following table shows the relationship among the intended outcomes of the different levels of curriculum planning. The content and performance standards are stated as intended outcomes. The sequential

tasks and learning projects that are the stages of learning through which the students achieve those outcomes will have their own intermediate outcomes, as will each individual lesson plan. Further, the "what" and "how" questions above are useful in clarifying the task or project and lesson plan outcome levels in the table below.

Components Teaching Considerations	Content Standards	Performance Standards	Intended Task or Project Outcomes	Lesson Plan Intended Outcomes
Scope	Broad	Moderate	Narrowing	Focused
Time needed to achieve	Several years	Months	Weeks or days	Day(s)
Purpose or function	Provide broad scope of curriculum	Outline the curriculum	Design the projects or tasks	Design the lesson plans
Example of use	Plan K–12 curriculum	Plan year-long curriculum	Plan tasks or projects that comprise the year-long curriculum	Plan daily learning activities

All of the components must be aligned with the program's philosophy and district goals. The curriculum writing process responds to the three questions cited above.

Scope: What Do Students Need to Know?

This section describes the curriculum committee's work in developing content and performance standards, as well as those important outcomes that go beyond the standards. This curriculum guide defined art learning within four

domains: Design, Fine Art, Communication, and Visual Culture. This is the overarching framework for what students need to know. Within those four areas, aesthetic awareness, thinking skills, values, and dispositions are all discussed briefly in this portion of the chapter. A caution about the importance of working toward deep understanding of the concepts ends this portion of the chapter.

Curriculum Software

Curriculum software is available for recording district curricula. It is not a substitute for the careful considerations and discussions of the curriculum committees and subcommittees recommended in this chapter.

The Department of Public Instruction has developed a web-based "curriculum wizard" to facilitate recording the curriculum. It can be applied in recording the long-term plan, the learning projects, and the lesson plans. Some districts have adopted this while others have purchased commercial software. Access is on the DPI website at http://www2.dpi.state.wi.us/sig/practices/cw/index.asp

One stage of the curriculum wizard's processes focuses instruction and learning through concepts or big ideas, and guiding or essential questions, which flow from the big ideas. Big ideas are entities such as the content standards (e.g., Standard C, Visual Design and Production). To develop the Big Ideas, think of the important concepts that undergird the various content standards and are key to students' creating or responding. For instance, a Big Idea for Standard C might be the Elements and Principles of Art and Design. A guiding, or essential, question for that standard might be, " How can students learn to utilize the Elements and Principles in creating art and design?," or "How can students learn to detect and overcome their challenges in creating art and design?" Guiding questions are really action research questions, and students and teachers should develop and address it as action researchers.

Content Standards

The question "What do students need to know?" concerns the scope of the curriculum, the broad areas of knowledge in art and design. These are embodied in the content standards, the starting point and foundation of the curriculum. The curriculum committee must first consider the needs of students when deciding whether to adopt *Wisconsin's Model Academic Standards for Art and Design*; adapt them, if needed, to the district's own unique situation; or create its own. Whichever path is chosen, the committee should ensure that the content standards it finally adopts are its own best answer to the question, "What do the students need to know?"

Performance Standards

Performance standards are more specific than content standards, further defining the curriculum's scope and intended outcomes and broadly outlining the curriculum's sequence. They also serve as the basis for developing the key questions used when developing and improving learning projects.

As with content standards, the subcommittees also must decide whether to adopt or adapt the performance standards or create their own. A good approach to developing performance standards is "vertical teaming," in which two teams are formed, one each from the K-8 and 9-12 levels. Both groups would develop the performance standards for grade 8, which forms the end goal for K-8 students and the starting point for high school. Each group then decides the desired outcomes – knowledge, skills, and dispositions – of the sequential curricula for their grade levels. During this part of the process, and later during the implementation/piloting stages, regular communication among these groups is important in order to achieve the goal of a seamless, well-articulated curriculum with a common focus across each level. Writing teams are encouraged to develop performance standards for different levels or for all levels to support a sequential path for learning.

Beyond the Standards

In addition to the standards, there are vital understandings, skills, and dispositions that can be developed through the strategies used to teach and assess the standards as well as through the teacher's interaction with the students. For instance, **aesthetic awareness**, mentioned minimally in the standards, is an important outcome of art and design education programs. This understanding is a vital factor in developing artistic discrimination and in perceiving beauty throughout life. Aesthetic understandings should be cultivated in normal class work. This is described more fully in the next chapter, Planning Instruction.

Thinking skills, important outcomes of education, are best developed by using them in pursuit of meaningful and relevant goals. The design process model described later in this chapter and the next is an ideal vehicle for helping students develop, apply, and become aware of these abilities.

Also not mentioned in the standards is the important area of **values** and **dispositions**. Since students are developing their values and attitudes from birth onward, teachers should help them experience and develop those values that will enable them to become highly functioning, responsible members of a democratic society. For instance, in the learning projects described later in this guide, students enter into the decisions that affect their work in the classroom. Also, a sense of community, collaboration, and responsibility for self and others is promoted through self and peer assessment. Another strategy some teachers have found useful is the development of a social contract describing the classroom expectations.

Values and attitudes are not *taught* as much as they are *caught* from precept and example. It is essential that teachers serve as models for their students. A teacher who displays curiosity, has a personal passion for learning new things,

and continues artistic involvement on a personal basis beyond the school day communicates a strong message of the value of the arts and lifelong learning. Likewise, a teacher who displays empathy and concern for individuals will tend to foster like attitudes in his or her students.

It is important to note that the kind of **deep understanding** that is the goal of any well-written curriculum is never arrived at quickly or through direct instruction. Deep understanding involves specific principles of learning coordinated with instructional strategies that motivate students, involve them in their own learning, and help them use assessment as a learning tool. This theme is developed in later chapters on instruction and assessment.

Sequence: In What Order Should Learning Occur?

Following the development of the scope of the curriculum's content, the sequence of presentation of that content is the next consideration. As a preface to describing the development of the curricular sequence, the different kinds of understanding are described.

Three Kinds of Understanding

It is often helpful for curriculum writers to think of the kinds of understanding to be gained in the classroom as being of three types: declarative, procedural and contextual. **Declarative knowledge** ranges from simple—the ability to recall, identify, or define facts and concepts, to complex understandings *about* concepts, principles, generalizations and theories. **Procedural knowledge** also varies, from simple abilities to *use* declarative knowledge, to the more complex ability to use knowledge and skills in creating, analyzing, and evaluating. **Contextual knowledge** is knowing when and in what context to use the appropriate declarative and procedural knowledge. Many find that listing the declarative and procedural knowledge specific to a given content standard and level helps establish both clear performance standards and facilitates the later design of instructional tasks.

Outlining the Curriculum Sequence: How Will They Learn?

This part of the curriculum consists of the content material, the sequence and strategies of instruction, and the assessment protocols. It is developed by the performance standards subcommittees for each grade level and area of art and design and will span the year. It involves the following steps, not necessarily in this order.

- Step One: Develop the broad year-long outline of the curriculum plan and its content that will lead to the achievement of the performance standards for that particular grade and area.
- Step Two: Design the sequential standards-based learning activities – long-term projects and their learning tasks that will enable students to achieve the performance standards.

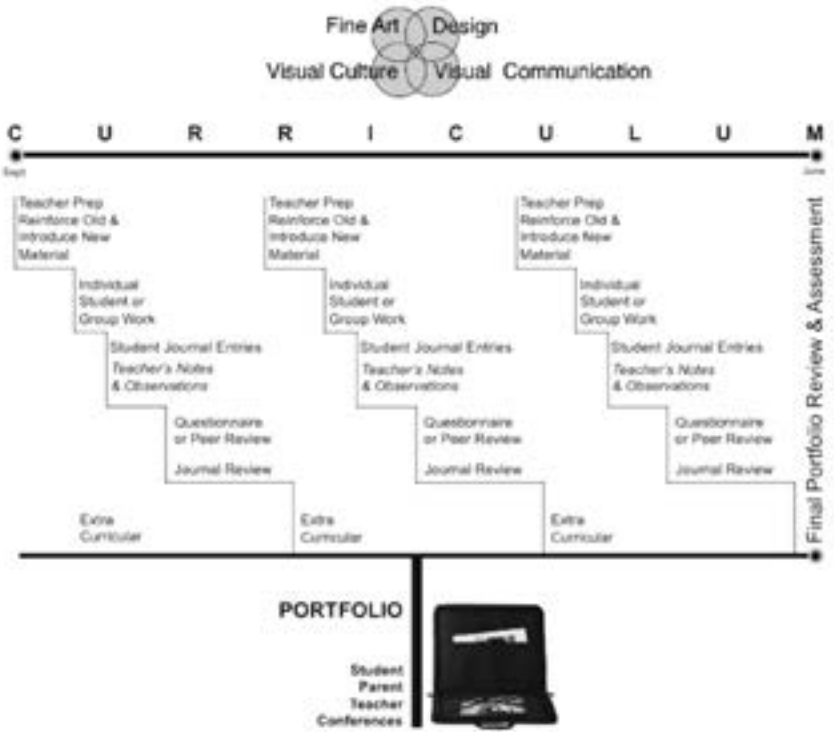
- Step Three: Develop strategies for teaching the tasks.
- Step Four: Establish the classroom-based assessment process.

The rest of this chapter discusses these four steps and closes with a short section on piloting aspects of the curriculum, both during the development process and after completion.

Four Steps of Curriculum Writing

Step One: Developing the Year-long Curriculum Plan

The following figure is an illustration of a year-long plan. It depicts the curriculum in the context of such instructional/learning strategies as questionnaires, peer interviews, student journals, portfolios, and student-led parent–teacher conferences. This diagram could be adjusted for shorter courses or for a single grading period.



This section deals with developing the plan and content of the curriculum, represented above along the line labeled "curriculum."

The plan must provide content that is sequenced to enable students to achieve the performance standards developed by the curriculum subcommittees. The content is a critical consideration. The mastery of the deep central issues of art and design embodied in the content and performance standards cannot be achieved solely through simple exposure or short-term activities. Instead, substantive learning is best achieved through long-term learning projects in which students address problems in depth that are similar to those faced by practicing artists and designers. Like these professionals, students must have *multiple* opportunities to devise and apply solutions and to analyze, assess, and

revise their work. A curriculum plan might be comprised of a sequence of such projects, which are, in turn, comprised of a series of learning tasks that focus on the projects' intended outcomes. (See again the figure above.)

Using these considerations as a guide, some teachers develop the curriculum for a given timeframe around events that are part of the school year, such as school-wide celebrations, adoption of school "themes," important social events, art shows, etc. They might begin by considering what students could accomplish by the end of the year in terms of levels of proficiency in the standards. After listing these learning targets, they would then plan how to focus the preparation for these events to lead students to achieve the proposed targets. To organize such a plan, some teachers develop a curriculum map—a matrix that reflects the learning projects, the standards addressed, and/or the strategies to be used as well as the time allocations throughout the year. With such a plan, students gain appropriate, in-depth understandings of the standards as part of the normal activities of the classroom. Assessment procedures, described briefly in this section in "Effective Teaching/Learning Strategies" and in depth in the Assessment chapter, are based on the learning outcomes developed by the teacher and students prior to the project.

Step Two: Designing Sequential Standards-Based Learning Activities

This section describes in more detail the development of tasks that can prepare students for long-term projects or that will comprise the learning projects themselves. In planning long-term learning projects or units, as well as the tasks that may be needed to prepare students for the projects, the teacher first considers the big idea or concept from the content standards on which the project is based.

The learning tasks needed to accomplish the project should be sequenced to reinforce earlier understandings and, perhaps, introduce new ones for students to master, apply, and develop further in other long-term projects. Learning tasks range from closely focused tasks and/or direct instruction of simple declarative and procedural knowledge, to learning, applying, and assessing more complex understandings while addressing art and design problems. Short learning tasks can lead seamlessly into more sustained learning projects or to be built into them. Basic skills in art, for example, can be presented at the time when students are ready to use them as part of a longer-term project.

The **elements of art** and **principles of design** are naturally taught and learned through the learning modes of creating and responding. Because all the standards are based on these modes, a thorough understanding of the **elements** and **principles** can be a natural outcome of instruction based on the creating and responding standards.

These tasks and projects form the basis of the curriculum plan. Ideally, before beginning a long-term project or unit, the teacher and students should decide together on appropriate learning outcomes and develop rubrics for the outcomes addressed.

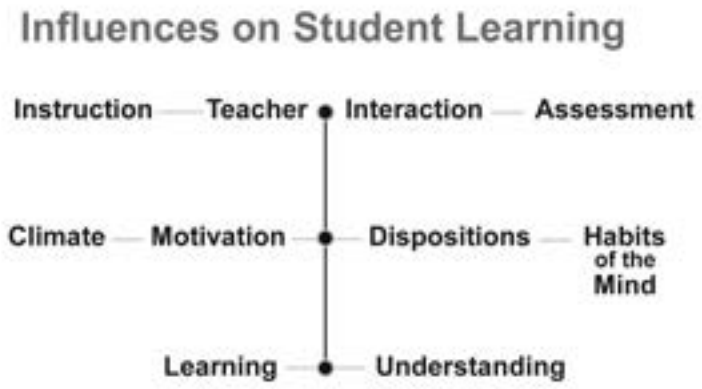
With the concepts above in mind, this guide suggests learning projects that:

- are solidly based on previous learning;
- reflect a balance of Design, Fine Art, Communication, and Visual Culture;
- focus on the standard(s);
- have clear learning outcomes;
- are long enough in time to provide students with repeated experiences in 1) developing and using the necessary understandings, and 2) assessing and revising their work;
- are authentic tasks, occurring in the context of ongoing classroom instruction;
- present students with an appropriate challenge of their artistic understandings and thinking skills; and
- are carefully sequenced to reinforce and build upon previous understandings and, when appropriate, introduce new ones.

Step Three: Developing Instructional and Assessment Strategies

As indicated earlier, the written curriculum should include instructional and assessment strategies. These have considerable influence on student learning both directly and indirectly. The authors of this guide advocate a change in the traditional way of teaching and assessing, based on years of extant research and best practice. While issues of instruction and assessment are discussed further in the next two chapters, it is important to explore their impact on the written guide here as well as in practice.

Continuing research, dating from the '50s (Flanders 1965, 1970), has shown that teachers' classroom interactions, including instructional/assessment practices, not only *directly* affect students' development of understanding but also *indirectly* influence thinking skills, intrinsic motivation, classroom climate, and dispositions to learn, all of which impinge upon student learning and are among the most important outcomes of education. The graphic below is an illustration of the processes that occur in every classroom—math, social studies, art and design, etc.—and with new, veteran, great, and emerging teachers.



Influences on Student Learning

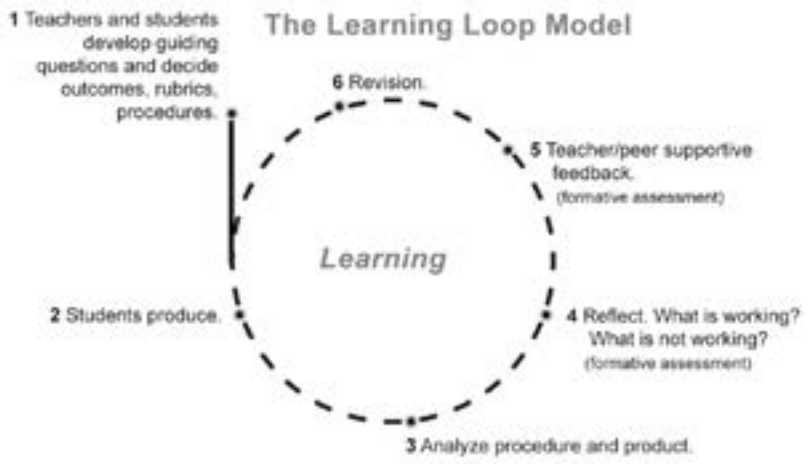
The effects of instruction and assessment practices are often not considered as part of the curriculum writing process. Often the focus on "What do the students know?" overlooking a more basic question, "What does it mean, 'to know?"

Since one of education's main purposes is to prepare students to function effectively in the adult world, a logical answer to the latter question above should be based on the attributes of outstanding adults. In any line of work, career, or profession, the most productive adults are those who can find and define the problem; develop and implement a solution; analyze their work in progress, both process and product; reflect on what's working, what isn't, and what would improve it; and then improve it.

If we are to prepare our students to be productive in the adult world, this suggests a change in the process of instruction and assessment. An earlier model of schooling, still quite robust today, regards teachers as dispensers of knowledge and students as passive recipients. Very direct and didactic strategies dominate instruction in that model. Instead of direct instruction by the teacher, the authors of this guide propose a more active involvement of students in their learning. For instance, the analysis and reflection section described above implies student formative self-assessment, with supportive feedback from the teacher or peers.

An additional student involvement in the problem-solving process might be to have students as a class find and define the particular problem(s) in the learning project the teacher presents, then determine how to solve the problem and begin implementing the proposed solution. This practice of involving students more actively in their own learning is termed *constructivism*. Constructivism and instruction are discussed more fully in the chapter on instruction. The chapter on assessment goes into more depth on good practices in both formative and summative assessment.

The following "Learning Loop"—a simpler, more conceptual version of the design process recommended throughout this guide—operationalizes this process and engages students actively in the same manner as adult professionals. Formative self-assessment, numbers 3 and 4 in the graphic, is embedded in this model as a learning tool. This mimics the use of assessment.



The following describes the process in more detail.

- The teacher and students develop the guiding question, which flows from the performance standard(s), and decide on 1) the important outcomes of the learning project implied by the question; 2) the rubrics indicating the different proficiency levels of the outcomes; and 3) the procedures to achieve the outcomes.

- Students begin generating a product (a design, drawing, critique, etc.) by implementing the chosen procedures.
- Students analyze the process and product of their work in progress (or that of others), noting the elements of the process and product, their relationship, and contribution to the total effect.
- Students reflect on what is working, what isn't, and what might improve both process and product.
- At this point, supportive teacher and/or peer feedback helps students more efficiently direct their efforts and helps the teacher facilitate the students' efforts more effectively in the next iteration of the cycle. The reflection phase of this "learning loop" is a formative self-assessment process. Combined with supportive input from the teacher and/or peers, it gives direction to students in their ongoing work on the project.
- Using the feedback generated above, students revise the process or product as indicated and continue the cycle.

This model is most applicable to 2D and 3D art projects. In design, other factors suggest that a more detailed process is needed. For instance, object design entails such considerations as form and function, ergonomics, sustainability, design philosophy, benefit to the user, benefit to the manufacturer, sound ecological quality of materials and processes throughout the life of the product, and visual appeal. For this reason, the design process recommended in this guide involves other steps, which are elaborations of the questions in the simpler process above. This is a classic problem-solving model implemented by those design firms—such innovative companies as Apple, IDEO and Dyson—who produce the most innovative products (http://www.jamesdysonfoundation.com/education/default.asp). While this process can also be used by individuals or by groups, in the world of design group efforts usually dominate. Note that all the standards can be taught and learned through this model.

Step Four: Establishing Classroom-based Assessment

This guide suggests a sharp departure from the traditional teach, drill, and test model of assessment. The best use of assessment is as an instrument for learning, and both formative and summative assessment can be used in this way.

The preceding description of effective teaching and learning strategies is an example of using embedded **formative self-assessment** as a vital part of the design process. This is classroom-based assessment that engages students actively in their own learning, a central theme of the guide. In this model students use formative self–peer–teacher assessments *for* their learning, as well as *of* their learning. Thus, on an ongoing basis the students *and* teachers know where students are in relation to the intended learning outcomes and can direct their efforts to teach or learn more efficiently. Perhaps even more

important, they are developing and applying those habits of mind and thinking skills described earlier as attributes of outstanding adults.

Because this model is based on producing something (a design, drawing, sculpture, or a self or peer critique), the assessment itself is actually close to what art and design teachers already do. The main difference is that the teacher involves the students in appraising both how well they are accomplishing the task and how they can improve both their product and the process they are using. Similarly, the teacher's assessment also expands to include not only the quality of the student's product but also how well the student can assess both product and process. This model mimics the way in which professional artists and designers improve their skills.

Since even before kindergarten students make preferential decisions, teachers should help students establish reflective habits of mind early on and continue to develop them in succeeding years. An easy introduction to this is a simple question, "What do you think of the drawing/design you made?" "What would you change next time?" or "Would you like to try it again and make those changes?" "What do you think it is communicating?" gives the student a chance to test the extent to which the object is doing what he or she intends it to do. This early introduction to critical analysis and assessment, continued and guided by the teacher, can lead to well-developed discriminations and habits of mind in the later grades. Peer assessments are often helpful to students, but it is important that both teacher and peer comments be supportive and constructive.

Eventually, students should be involved with the teacher in establishing the assessment protocols described earlier in this chapter. This kind of involvement helps students internalize the intended outcomes, develop a sense of ownership, and take more control of their own learning, all of which are strong motivational factors. In later grades, written comments by the students on their judgments of their and others' artwork or designs will promote a more in-depth analysis and assessment of their work as well as enhance their own learning. The entire process mirrors how adult professionals in *all* disciplines improve their abilities in the real world.

In this model, **summative assessment**, like formative assessment, is an occasion for learning. It is based on the students' portfolios and would normally occur at the end of the learning project. Both student and teacher examine the portfolio contents and using the student/teacher-developed rubrics, evaluate the work and give reasons for their evaluations. Teachers using this approach find that students are quite honest and open in their self-appraisal when they have had a hand in establishing the intended outcomes. This will be discussed in greater depth in the chapter on assessment.

Piloting the Curriculum

During the writing of the curriculum and even after it is completed, teachers should pilot learning projects, instructional strategies, and/or assessment protocols to determine their fit. Teachers find that piloting is best confined to a small but representative sample of students—perhaps a single class.

This enables teachers to analyze carefully the particular item's usefulness, alignment with the standards, practicality, and/or validity. Either the "Learning Loop" process described earlier, or the design process used throughout this book could serve as the guide for the curriculum pilot.

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Planning Instruction

7

Introduction
Aligning Instruction with Long-Range Outcomes
Using the Design Process to Improve Instruction
Motivation and Constructivism
Integrating Aesthetics Instruction
Classroom Climate
Learning Styles
Readiness
Summary

Introduction

This chapter is intended to answer the question "How will they learn (in *my* classroom)?" The answer will involve:

- aligning unit and daily plans with long-range goals;
- improving instruction through use of the design process and self-assessment;
- increasing motivation by using principles of constructivism;
- creating a positive classroom climate;
- modifying instruction to suit students' learning styles; and
- adjusting instruction based on students' learning readiness.

Some of the points stressed here will be familiar from previous sections.

Aligning Instruction with Long-Range Outcomes

As noted in Chapter 1 and demonstrated in examples at the ends of Chapters 2-5, the basic building block of instruction used in this guide is the unit plan. Each unit developed contains one or more learning tasks related to completion of a long-term project. The task or tasks involved should facilitate for students a review of concepts previously used and allow them to build their understanding of new ideas. Improved understanding of the principles of art and design, the development of the physical skills of production, growth in aesthetic understanding, etc. are all part of this plan. This unit plan is used as the basis for creating weekly and/or daily plans. The unit plan is also the

means for comparing short-term goals with the long-term outcomes of the broader curriculum.

Keeping day-to-day instruction aligned with the long-range outcomes of the curriculum is vital for optimal learning. Ideally, teachers and students should know and be able to tell where students are in relation to desired outcomes and what they are currently doing relates to these outcomes at any time. Teachers should regularly reflect on the effects of unit plans on their students' progress toward broader goals and make mid-course adjustments as needed. However, because immediate concerns—the next art exhibit or lesson preparation—are so public and important, the connection between the present activity and long-range targets is sometimes neglected. The following practices can help maintain a long-range focus.

- Determine 3-5 large ideas that will serve as a focus for a specific grade level or course; e.g., most lessons will have a connecting thread related to sustainability, local culture, purpose of art, a particular type of problem solving, etc.
- Develop a year-long curriculum of unit plans for each grade level based on the standards, as described in the chapter on curriculum writing—including strategies and time allocations.
- Make students aware of the plan and ask their input on certain aspects.
- Select projects and develop unit plans specifically for their potential to teach given standards.
- Have students regularly self-assess progress toward short- and long-range outcomes using the design process.

When students, as part of the design process, engage in reflection, analysis, and self-assessment, they are practicing skills that contribute to the sort of self-awareness and metacognition necessary for success in the work place.

Using the Design Process to Improve Instruction

Providing explicit instruction in the design process can *improve instructional effectiveness*. When students understand the process with which they are involved, they feel more empowered, better able to understand their next steps along the way, and appreciate the importance of ongoing personal assessment of their work. The teacher further aids students by discussing with them their current status within the process, helping them self-assess their progress, and nudging them along when it's time to move to a next step—that is, helping guide them through the design process.

In addition to the benefits already described, using the design process to *guide learning* helps students in other ways. As we move away from a model of schooling that regards teachers as dispensers of knowledge and students as passive recipients, we are also better preparing students to be more productive in the adult world. When students, as part of the design process, engage in reflection, analysis, and self-assessment, they are practicing skills that contribute to the sort of self-awareness and metacognition necessary for success in the work place.

The same design process can be used by teachers for *personal improvement*—that is, teachers should analyze their own work, reflect on it, and build a portfolio of ideas and plans they have used. This portfolio could include reflections on what worked, what didn't, how effective was the product or outcome, and what needs to be changed to improve it, including student reactions to such questions as "What was the most important thing you learned from this project?" or "What did you enjoy the most?" This can be a valuable resource for improving effectiveness of instruction and of the curriculum.

Motivation and Constructivism

Motivation is a vital element in planning instruction for student learning. Extrinsic motivation is the result of conditions outside the person, while intrinsic motivation is an outgrowth of internal needs or desires related to the task itself. In considering how children will learn, it is important to keep what we know about motivation in mind. Two key concepts will help in planning for effective instruction.

First, instructional and assessment strategies that make use of the three inborn factors universally present in all humans—an urge to learn, a desire to grow up (quickly), and the need for greater control of one's life—also foster student motivation. These are survival instincts, born of eons of evolution in a hostile world in which those who matured quickly and possessed the will and wit to control their environment held a survival advantage.

Second, it is important to note that the nature of the learning tasks in the unit plan can be a significant source of motivation. Students respond quite differently to tasks that are authentic "real-life" tasks—tasks that adults confront and that have importance beyond the classroom (e.g. creating plans for urban development, determining the graphic design for a school brochure, etc.) —than to tasks obviously constructed for grading. Further, in a summary of motivational research, Kellaghan, Madaus, and Raczek (1996) found that students respond positively to tasks that they perceive as challenging but within their abilities and that have relevance to them. Also, creative tasks, which provide the student a degree of freedom in their resolution (e.g., constructing an experiential design, designing sculpture for a public space), can be a source of personal pride and intrinsic motivation. To maximize motivation, then, teachers should develop tasks that are *authentic*, *appropriately challenging*, *relevant*, and *creative*.

The example of active student involvement described in the design process model, in which students help decide the task's guiding questions, important targets, and levels of proficiency, has important motivational factors. Such involvement helps them:

- assume a degree of autonomy and develop an internal "locus of control;"
- take more responsibility and ownership for their own learning (an adult role);
- gain a feeling of presence in the adult world by making artistic decisions on their own; and
- develop empowerment to pursue that urge to learn by helping them internalize the learning outcomes, construct understandings more readily, and recall and transfer them more easily.

Lessons that are motivating to students are always more effective than those that do not consider what is known about human nature and learning.

Teaching essential skills at the time when students most need them to continue and succeed in their work increases motivation. The tools and techniques of art and design, when taught in the context of project completion, are inherently relevant and authentic to the student. As noted above, this increased motivation improves learning.

The concept of constructivism promotes instructional strategies that use these inborn drives. A concept embraced by philosophers and educators for centuries, constructivism shifts the emphasis of the learning process from teacher to student. It suggests that students build concepts internally by interacting with peers, teachers, and their environment—including the learning tasks on which they are working. Thanasoulas (2011) has attempted to summarize the underpinnings of constructivism in the work of Piaget, Dewey, Rogers, Bruner and others by saying that "learning is the result of individual mental construction, whereby the learner learns by dint of matching new against given information and establishing meaningful connections, rather than by internalizing mere factoids to be regurgitated later…" These shifts in emphasis from teacher to student, from facts to concepts, from rote learning to learning through experience, from project to authentic work, fit well with both motivation theory and the use of a design process to guide instruction.

> "Students are volunteers, whether we want them to be or not. Their attendance can be commanded, but their attention must be earned. Their compliance can be insisted on, but their commitment is under their own control." —Phillip Schlechty

In the end, we might consider three "*musts*" and three "*shoulds*" in planning for motivating and effective instruction.

- Students **must** have multiple opportunities for applying new understandings, analyzing and assessing the results, and revising the product and process (as in the design process and constructivist models suggested above). This assessment—self, peer, and/or teacher—and revision **should** be done in a collaborative, non-competitive climate in the context of an authentic task, one that has significance beyond the school.
- Students **must** know the learning outcomes before the instructional/learning phase, and they **should** be involved in determining them, always relating them to the appropriate long-range goals.
- Students **must** know if they are "on track" to the outcomes and, upon completion, if they achieved them and why. This **should** result from the ongoing formative assessments embedded in the instructional process.

More information on both formative and summative assessment follows in the next chapter.

"Aesthetics engages the intellect and emotions, and imagination and reflection, thereby enriching possibilities for human achievement in the creation, comprehension, and appreciation of the (visual) world."

Integrating Aesthetics Instruction

The fact that aesthetics is generally considered a branch of philosophy has often made it appear inaccessible to students—an esoteric topic separate from the world of instruction in the production or viewing of art and design. In this book, we have defined aesthetics as a combination of the understanding of the structure of art, the ever-changing socio-cultural environment of both artist and viewer, and their implications. This definition makes clearer the relationship between aesthetic understanding and instruction in art and design. Lankford (1992) identifies the centrality of aesthetics to learning about art by noting that "…aesthetics engages the intellect and emotions, and imagination and reflection, thereby enriching possibilities for human achievement in the creation, comprehension, and appreciation of the (visual) world."

The Lincoln Center Institute of New York City (LCI) has identified a list of practices originally referred to as "Capacities for Aesthetic Learning"—now called "Capacities for Imaginative Learning." These capacities include:

- Noticing Deeply
- Embodying
- Questioning
- Identifying Patterns
- Making Connections
- Exhibiting Empathy
- Creating Meaning
- Taking Action
- Reflecting/Assessing

Asking students questions that require them to use these capacities helps them think deeply about the aesthetic content and meaning of their own work and others.

One way to approach the kind of questioning that promotes aesthetic understanding is through the elements of art and principles of design. Examining with students the aesthetic impact of decisions made about line, space, texture, focus, balance, rhythm, etc. in their own work and the work of others deepens their aesthetic awareness. Adding questions that explore the nature of the subject matter, the milieu in which the work was or is being created, the medium selected and/or the symbolism present, engages students in higher-order thinking about how culture and experience affect the choices artists and designers make.

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Four examples of the kind of questions that should be part of informal and formal discussions, particularly during formative assessment of student work and the viewing of the work of other artists/designers, follow. The first two are questions related to the elements and principles of art and design within artistic, cultural, and functional contexts. The last two questions explore concepts related to the ways in which the artist and viewer are affected by culture and experience.

- How would this painting feel different if you (or the artist) had chosen to apply the paint with a brush rather than a spatula? (tools)
- Why did you (or the designer) choose to finish this device with a black finish rather than silver? (surface)
- Why did you (or the artist) include the image of a horse in this landscape as opposed to some other animal? (subject matter)
- How would the introduction of a small-scale, two-story building at the corner of this block dominated by taller structures affect your perception of the city's business district? (scale)

These hypothetical questions require the student to think about the choices made by the artist/designer from the perspective of the aesthetic impact—the response created by the piece of art or design. These are the kinds of higher-order questions that contribute not only to increased understanding of aesthetics, but also to a deeper understanding of the elements of art, principles of design, and impact of culture/experience on our work.

Classroom Climate

Classroom climate is another important factor in student learning. Flanders' research has shown that the learning environment has a strong influence on student achievement. In his study of this subject, Flanders found that, for optimal learning, classroom climate should be positive and supportive, encouraging student risk-taking and creative responses. He further concluded that "the behavior of the teacher, more than any other individual, sets the

climate of the class" (Flanders 1965). Climate is thus a vital consideration in planning and implementing instruction.

Teachers can most readily influence climate by focusing on two complementary aspects of classroom interaction—the rapport *between* teacher and students and the rapport *among* the students. In the first aspect, teachers influence climate through their interaction in many ways, ranging from how they greet students in their classes to how they function as facilitators of the students' efforts. This includes emphasizing supportive interaction and assuming the role of allies of the students, working with them to *improve* their competency, rather than as judges for whom students must *prove* their competency. This is most successful when teacher and students are engaged in authentic tasks with goals and purposes beyond the classroom, such as the development of a portfolio, re-design of a learning space, or pursuit of a career path. Such learning should be an organic, standards-based aspect of the curriculum. By initiating and maintaining a supportive climate, teachers can promote a bond of trust, students' ownership of their own learning, and a willingness of the students to take risks, be creative, and pursue learning independently.

Some related practices that encourage teacher-student rapport are:

- the use of student journals that provide a two-way communication process between student and teacher;
- teacher–student interviews, in which the teacher learns of the students' backgrounds, plans, desires, etc.;
- ongoing collaborative teacher–student assessment of student work, in which the teacher takes student opinions and judgments seriously and gives non-judgmental feedback; and
- requests by the teacher for students' suggestions about artistic questions. In addition to promoting understanding, this fosters intrinsic motivation by showing students that they and their ideas are valued by the teacher.

In the second aspect, positive rapport among students encourages creativity, a sense of security, and an intrinsic desire to learn, as well as the risk-taking and self-initiated learning mentioned above. Teachers can promote this by encouraging students to use each other as learning resources in a non-competitive, collaborative atmosphere. Other activities that foster positive rapport are:

- peer interviews, which help students identify with each other;
- supportive peer assessments; and
- group work toward such shared goals as an art and/or design learning project.

Used as a normal classroom practice, these engender and support a "community of learners" climate among students.

A safe and supportive classroom—one that provides students the freedom to play with ideas, to consider "what if," and to risk the unsafe response—not only fosters motivation, self-directed learning, and achievement, but also is the seedbed of creative thinking. The graphic, from Chapter 6 on page 76, illustrates how all of this fits into the year-long curriculum plan.

Learning Styles

All students learn in a variety of ways and often prefer one to the others. As an example, some students will learn art and design concepts most readily through kinesthetic activities while others may prefer text, visual, or aural representations. Others may gain greater understanding through an analytical presentation, while still others may learn more from an experiential situation.

All are important ways of developing understanding, and art educators must help students develop all these avenues through a variety of learning activities. Unfortunately, a teacher whose style of learning is primarily visual, sequential, and reflective may have trouble understanding a kinesthetic, random-thinking student.

Having students work in small groups on an art project might reveal a variety of strategies. Some might first try out ideas on paper; others think it through first and then plan; and still others might analyze it thoroughly in writing before beginning work. In other words, allow multiple ways for students to initially engage in a topic.

Because of this diversity of learning styles, teachers should use a variety of instructional strategies based on students' preferred learning modalities. Secondary classroom teachers are challenged because as students become older, there are more differences among students. Elementary teachers, who may see 500 or more elementary students once a week for 45 minutes, face other difficulties. For this reason, classroom teachers are often a good source of information on students' learning styles.

Although not often considered in this context, motivation is also a vital factor in accommodating learning style. When motivated, students will often accommodate themselves to the learning situation better than the teacher can accommodate the learning situation to the students' preferred styles.

Readiness

In planning instruction for learning projects, teachers must ascertain students' readiness in three areas:

- physical development;
- disposition to learn; and
- level of understanding.

In the physical area, students' gross and fine motor/manipulative control and art skills are interdependent. Improvement in one area leads to improvement in the other. Art educators who work with pre-kindergarten and elementary students must be adept at routinely diagnosing children's abilities in these areas and planning appropriate learning experiences.

Students' disposition to accept a greater role in learning advocated by this guide is another important consideration. Students may be comfortable with direct instruction and resist such a change, especially if it is presented as another assignment with grading implications. Teachers can avoid this problem by involving students gradually, such as asking students to react to an artwork of theirs or their peers. Later they can be involved in presenting their work to the class, describing how they accomplished it, what they like about it, and what they would change next time. Critiquing a peer's work can be either destructive or constructive depending on the teacher's approach. Some elementary teachers tell students they must give the peer "Two gold

stars and a wish" – two positive statements followed by a statement about a desire to have something changed. Greater student involvement in activities like this becomes a motivational factor, since students tend to regard it as an affirmation of their emerging adult abilities (McVarish and Solloway 2002).

Students' disposition to learn also is affected by their view of themselves as successful or unsuccessful learners. In reviewing the research literature on motivation, researchers observed that students' beliefs about their abilities often become self-fulfilling prophecies (Kellaghan, et al. 1996). Since belief in one's potential for success is a product of previous successes, the teacher must design and implement instruction so that students perceive the challenge as one that, with effort, they can accomplish. Using a mix of learning tasks (described in the following paragraph) achieves that goal. In addition, helping students learn from each other through small group work, peer coaching, and collaborative work helps slower students achieve success.

Finally, teachers also must be aware of their students' levels of understanding so they can design instruction that begins at the students' level, reinforces earlier learning, and provides the next appropriate level of challenge. Researchers at Project Zero found that an effective strategy for this is using a mix of closely structured and relatively unstructured learning tasks. In closely structured tasks students are confronted with only a few new items to master. Less structure and more items are provided in succeeding tasks until eventually the students address relatively unstructured authentic tasks in which they apply the previously learned knowledge and skills to solve a problem (Winner 1991).

> "A leader is best when people barely know that he exists… but when his work is done, his aim fulfilled, the people will say, 'We did this ourselves.'" —Lao Tse, 640 BC

Summary

In planning instruction so that all children will succeed, teachers must work to:

- align daily and unit plans with short-and long-range goals;
- improve teaching effectiveness by providing instruction in the design process and by using self-assessment to improve the lesson/unit design;
- promote motivation by using a constructivist approach to teaching;
- foster a supportive classroom atmosphere;
- become aware of students' different learning styles; and
- understand student readiness—balancing challenge with possibility of success.

Beyond the above points and perhaps of most importance, there are at least two long-term goals for the teacher that go beyond even the content standards in art and design—enabling and motivating students to use their minds well and to become their own teachers. As much as possible, these must be part of all planning and teaching strategies. Students who achieve these outcomes become independent learners with the will and ability to grow throughout life. These are possibly the most significant long-range goals of all, and the design process model is created to achieve this.

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Assessment

8

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Introduction

This chapter is designed to help teachers understand the types, uses, and complexities of assessment tools. In addition, examples are shared to support educators in their work in developing assessment tools that identify student abilities and proficiency levels of objectives and shape instruction. The main focus of the chapter is to offer multiple measures to foster student art and design skills and knowledge growth. The use of multiple measures versus choosing a single measure to assess a student's ability level and proficiency is an opportunity to see many layers of the learners' strengths and weaknesses. Engaging the learner in the process of examining work, developing criteria for course objectives, and/or being able to articulate the objectives and expectations of learning are part of the classroom journey. This guide suggests the integration of assessment within the learning process to develop art and design skills and knowledge before, during, and after instruction.

The use of multiple measures versus choosing a single measure to assess a students' ability level and proficiency is an opportunity to see many layers of the learners' strengths and weaknesses.

Three Levels of Assessments

There are typically three levels of assessments used within educational institutions—state level, district or school level, and classroom level. Each has a unique purpose. State assessments review specified knowledge and skills of identified grade levels. The data and analysis of the tests can provide state officials in legislative decisions, policy matters, and resource distribution. District and school level assessment data and analysis can often assist superintendents and other administrators in decisions regarding local resources, student promotion, and professional development.

When assessment is limited and narrow in its identification of skills and knowledge, a consequential limited and narrow set of data emerges. A narrow scope can be positive in cases where a teacher, district, or state review specific knowledge sets. In order to avoid inaccurate or lofty analysis, the assessment developers must identify the scope of the assessment and purpose so as not to offer room for analysis not congruent with the design purposes. Multiple measures of skills are ideal in the overall assessment of a student's educational development.

Large and Small Scale Assessment

Large scale tests such as those used in state or district level assessments can offer valuable data. These tests are designed with either a norm-referenced or criterion-referenced purpose. Each design is described below for our understanding on how these might be used and how they are constructed.

Norm-referenced tests (NRT) measure broad skill areas with varying question difficulty levels. Student achievement on the test is reported for the broad skill areas, although some tests do report individual results for skills. Each individual is assigned a score—usually expressed as a percentile, a grade equivalent score, or a stanine. This test design compares the performance of current students to that of an original group that took the test (the norm group). This information may be useful in identifying potential instructional needs for a student by seeing where they rank among other learners within broad areas of knowledge.

Criterion-referenced tests (CRT) measure specific skills within a designated curriculum. The test is designed to measure performance against a set of clearly specified knowledge and skills. The outcome of a criterion-referenced test provides detailed information about how well a student has performed on the skills explored on that test. Each student is tested within a preset standard and measured for their level of proficiency within that standard. This information may be useful in determining whether each student has achieved specific skills or knowledge. However, the expense and the timeframe using this type of test cause most states to opt for the less expensive and readily obtained Norm-referenced tests.

Large scale assessments can also serve as a needs assessment for professional development at the local level. Because of the general imprecision of all assessment instruments, however, the results should be used as a guide, not the sole factor, in decision-making. Multiple measures of skills are ideal in the overall assessment of a student's educational development.

Small scale assessments, often seen as a classroom or course assessment, can guide in the decision-making process for classroom instruction and learner support. Teachers within their classrooms can design assessments to identify incoming skills and knowledge, progress during instruction, and/ or after a unit of study has occurred. These assessments each have a purpose and role within the educational plan to develop student knowledge and skills. There are multiple tools which can assist in our identification of strengths, challenges, and interventions needed in instruction. Overall assessment is a valuable tool for both teaching and learning, and can be used as a true reflection of student learning for teacher planning purposes.

Formative and Summative Assessment

Assessment can be both formative in instruction as well as summative to build students skills.

Formative is often viewed as "on-the-spot" feedback to a student about a skill they are practicing. It is often repetitive and ongoing in order to support learners in their skill development. The feedback provided is descriptive, sharing specific and detailed information about how the student met the learning objective and what areas of growth are needed to continually improve in their skills.

Summative may be the final delivery of a skill or knowledge of a topic. This phase is given at a particular point in time to see what students know and are able to do. At the end of the marking period, or before the start of a new skill, are both times the summative assessment may be chosen by the teacher to assess student proficiency of skills.

Both formative and summative assessment showcases a different phase of the learner's journey. The evidence we collect from a learner whether from a formative or summative measure should shape instruction to continue the spiraling of growth. Formative and summative measuring choices can serve both teaching and learning so that:

- students can more efficiently guide their own progress and are motivated to do so;
- teachers can more effectively facilitate students' efforts; and
- parents, administrators, and other stakeholders can be informed of their progress.

Content of Assessment

When instruction and assessment occurs on an ongoing basis, it provides formative performance assessments for a students' ongoing progress and informs future efforts.

The content of assessment should reflect instruction, progressing from measurement of students' simple declarative and procedural knowledge to their ability to apply these understandings in complex art and design contexts and to their ability to analyze and evaluate both process and product. When instruction and assessment occurs on an ongoing basis, it provides formative performance assessments for a students' ongoing progress and informs future efforts.

Since the development of the content of assessment begins with instruction, teachers have found the following questions useful as guides in developing tasks and projects.

- Are the proposed learning outcomes clear? Are they important? Relevant?
- What understandings and thinking skills are required in order to achieve the desired outcome? Are they appropriately challenging?
- Does the learning project itself pose an appropriate level of challenge?
- Could it be done well without achieving the intended outcome(s)?
- Could it be done poorly while still achieving the intended outcome(s)?
- What is revealed or can be inferred about students' thinking strategies and their level of procedural and declarative understandings based on their performance?
- Will this learning project provide ample opportunities for students to try out solutions, analyze and reflect on the result, and try again?
- Are students involved in self and peer assessment on an ongoing basis?
- Is the learning applicable to multiple contexts and applications?

Reliability and Validity

Assessment instruments and tasks must be **reliable** and **valid**. **Reliability** is a measure of the consistency of an assessment over time. A reliable assessment yields consistent results for equivalent groups of students over time and assessors.

A **valid** assessment measures what it is intended to measure, does so reliably, and permits the user to draw accurate and fair conclusions about the students' performance. A valid measure is both accurate and consistent (reliable). Some questions to determine validity follow.

- Does the task's content represent well those things this assessment purports to examine?
- Do students who do well (or poorly) on similar tasks perform similarly on this one?
- Does the assessment task allow for more than one way for a student to respond to demonstrate learning and accomplishment?
- Is there consistency across the semester or year in how assessment is conducted?
- Does the task discriminate among different ability levels?
- Is there a good fit between the assessment instrument (i.e., the task) and the understandings being assessed?

Tools of Assessment

Observations

The tools to assess students' grasp of the content range from the unstructured observations to more structured, formal assessments, enable the teacher to diagnose students' knowledge and skills during the learning process as well as student attitude and motivation to learn. **Observation** is an important diagnostic tool for teachers to employ. The most effective use of observation entails the development, use, and discussion of specific criteria or learning objectives for learners to pursue. Learners knowledgeable of the instructional goals will be able to ask questions, respond to immediate teacher feedback, and offer their own reflections of self and peer performances of skills. Rubrics are helpful in this and can be as simple as a specific posted classroom list of skills, techniques explored, and activities employed by the learners. Additional tools are discussed later within this chapter.

Selected and Constructed Response

Structured and formal assessments are basically of two types—**selected response** and **constructed response**. Each has advantages and disadvantages. The first category includes multiple-choice, matching, and true or false, in which the students select a response from options already provided. Selected response assessments have traditionally been regarded as objective, that is, the interpretation of a student's response is accepted as free from bias. With thoughtfully developed test items, there can be no doubt if a response is right or wrong. Further, a numerical score—the number or percent of right or wrong answers—is easily derived from such tests and gives a sense of solidity, a certain black-and-white aspect to the results. However, the following factors lend an aura of gray to these tests.

- The selection of the items themselves represents the test constructor's subjective judgment as to the items' importance, a view that may not be universally shared.
- The items can represent only a sample of all the knowledge in a domain, so the numerical score may only be used to *infer* a student's grasp of the domain.
- Choosing a response from a list of options seems to be unambiguous but requires a lower level of cognition and understanding than constructing a response.
- By their nature such tests occur outside the learning context, which research has shown can yield an inaccurate measure. (Gardner, 1992)

Teacher-developed selected response assessments can be helpful in determining students' basic knowledge about declarative and procedural aspects of art and design. Their advantages are ease of scoring, time and cost efficiency, and capacity to sample a broad range of items in a short space of time. Despite their listed limitations, they are a good means of determining a students' basic grasp of concepts before proceeding to more complex knowledge.

The second category of assessments, constructed response, requires students to develop their own responses without the guidance and focus provided by a list of choices. Examples include short-answer tests, essays, and performance assessments. Like selected response tests, short-answer tests essentially measure students' factual knowledge but require students to construct rather than select their answers. Essays can reveal knowledge about more complex declarative and procedural knowledge but cannot show how well a student can actually use that knowledge. Further, measuring students' artistic understandings through a written response may constitute a source of invalidity, since the quality of the response would depend heavily on students' ability to express themselves in writing. In addition, short-answer and essay tests are both examples of non-contextual assessment (see the 4th bullet point above).

Performance Assessment

Performance assessments for art and design means "doing" the processes listed in the performance standards. Instead of allowing only inferences (as in selected response), **performance assessments** are a direct measure of students' abilities to apply their knowledge and can be done in the context of the learning situation. This assessment serves as an important learning tool when students use them in formative ways during the learning process. Evaluations are usually in the form of rating scales or rubrics that provide meaningful information to students and parents. Students' understanding, motivation, and achievement are enhanced when they are involved in developing the criteria and rubrics and in self-assessment.

Just as with selected response tests, performance assessments also have limitations. Unlike the broad range of abilities that a single selected response test can sample, a performance task is confined to those abilities that comprise the task. Generalizing about a student's ability beyond the immediate learning targets must be done with care. Performance assessments typically require more time than selected response instruments but are quite manageable when the tasks are embedded in the normal instructional/learning process.

Checklists, Rating Scales, and Rubrics

Teachers have developed various evaluative tools to make subjective judgments more consistent and reliable. The most common are checklists, rating scales, and rubrics. A checklist simply lists the components of a task. Typically, the teacher observes the student and indicates on a list of the task's components whether the student completes them successfully. Checklists also are useful to students when learning to self-assess. One disadvantage is their lack of feedback on the quality of the student's work, since they indicate an accomplishment but not the degree of proficiency. Also, because they list the proposed outcomes as discrete items, judging the overall quality of the students' work requires careful consideration. Determining quality by merely counting the check marks assumes that all items are of equal weight, which may not be the case. However, when used in conjunction with rating scales or rubrics, they can help reveal a more complete profile of student understandings.

Rating scales similarly list the desired criteria, but they also must include proficiency indicators for each criterion that the teacher or student must check. The quality levels may be numbers, words describing quality (poor, fair, good, excellent), or a short descriptive phrase (two or three words) for each level. Of the three examples, the latter is superior because it directly describes different levels of accomplishment, while the first two are symbolic representations of a judgment that may lack clarity of meaning for students. When students use rating scales for self-assessment, they might be asked to state their reasons for indicating a certain quality—a practice which yields rich insights into their thinking and discrimination skills.

Typically, rubrics describe three to five levels of proficiency. If three are used, some teachers prefer descriptions of outstanding, proficient, and "not quite yet." Five levels can provide more precision but allow for the easy choice of assigning marginal work to the "in between" third level. Four levels offer a solid choice as shown in the example on the next page.

Rubrics represent the next higher level of precision. A rubric is a series of detailed categorizing statements based on a task's proposed criteria that describe the attributes of those criteria at certain levels of proficiency. Rubrics may be either "analytic" or "holistic." Analytic rubrics list each criterion separately with a statement describing its attributes at different proficiency levels (e.g., emerging, developing, proficient, and advanced). Such rubrics are especially useful for helping students to improve individual aspects of their work. Holistic rubrics address broader concerns, such as a complex of performance elements or the overall effect. Some guiding questions for rubric development are:

- Do the rubric statements describe the criteria clearly at each level?
- Does the rubric language identify what skills/knowledge exists, rather than what is missing?
- Do they enable a reliable yet adequately fine discrimination of degrees of work quality?
- Are the proficiency levels distinguishable from each other?
- Can numerous teachers and students use them with similar evaluative results?

Engaging students in assessing their progress provides them an excellent learning experience and promotes self-directed learning.

The best instructional use of rubrics is to make the criteria clear to the students. Again, teachers find that involving the students in determining the outcomes and in developing clear rubrics not only fosters consistency of judgment, it also helps the students internalize the outcomes and gives them a sense of ownership, an important motivational factor. Also, when students construct their own response to the rubric, using the rubric as a focus for their response rather than just selecting a given level, a rubric provides the best indicator of the depth of student understanding.

Three four-category teacher-made rubrics developed for a unit on design are shown. These rubrics are included to illustrate the rubric concept, demonstrate that there can be multiple approaches to the assessment of the same unit, and to show how a four-category rubric differentiates between levels. In practice, students should be involved in creating both the categories and levels of proficiency. Note that both the form and language used in this sort of assessment will vary based on age—with rubrics for the youngest students using simple language and/or pictures within a more checklist-like format.

Design Process-based Assessment Rubric

	Exemplary	Proficient	Emerging	Basic
Define problem	Clearly defines problem in relationship to scale of need and complexity.	Clearly defines a problem and need.	Defines a problem.	Inconsistent problem defined and needs assessed.
Brainstorm, research, and generate ideas	Creates many levels of ideas, within multiple contexts and multiple disciplines.	Creates multiple ideas within a context and a discipline.	Creates few ideas within a context and a discipline.	Creates a few ideas without related consistent context.
Established criteria	Criteria are specific to multiple contexts and levels of function.	Criteria are specific to a particular context and function.	Criteria are general to a situation.	Criteria are not clear or inconsistent.
Ideation involving multiple solutions	Creates diverse solutions that clearly communicate and exhibit solutions through a wide range of communications including drawings, models, diagrams, data, and photographs.	Creates solutions within an area that exhibit solutions through at least two forms of communication.	Creates a solution using a few forms of communication.	Creates a solution that is inconsistent to solving the problem and meeting criteria.
Selection of appropriate materials, processes, and solutions	Design solutions meet criteria, use materials that are appropriate and sustainable, clearly integrates "best" solutions of others and meets needs of multiple levels and users.	Design solutions meet most of the criteria, use appropriate materials, integrate ideas of others, and meets a specific function and context.	Design solution meets a few of the criteria, uses some appropriate materials, develops their ideas within a limited context.	Design solution is inconsistent to resolve specific problem, use of materials, support clarity of solution; ideas are limited.
Completion of object	Objects are well crafted and clearly communicate the complexity of the problem and solutions.	Objects are adequately crafted to communicate solutions for specific context.	Objects communicate a limited solution applicable to limited context.	Object(s) inconsistently communicate solution(s).
Evaluation of object and reflection	Creates evaluation tool that reflects criteria, tests object in appropriate context, receives feedback; records feedback and reflects, documents and/or creates another iteration of the object based upon evaluation.	Creates evaluation tool that incorporates some criteria, receives feedback from others; documents feedback and reflects on how object could be changed.	Creates a general evaluation tool, receives feedback from others; documents how some of the feedback could change the object.	Evaluation tool provides limited meaningful feedback to inform change of object.

Criteria-based Assessment Rubric

Criteria Identify criteria that must be addressed in the solution.	**Exemplary**	**Proficient**	**Emerging**	**Basic**
Criteria A: Meets specific user and needs	Determines and meets: user age, physical ability, cognitive ability, gender, interests, change over time, economic, social, ethnic, cultural patterns.	Determines and meets: Attends to basic needs and to a few additional factors important to the user.	Determines and meets: Attends to basic needs of user.	Attends to limited needs of the user.
Criteria B: Meets specific function and purpose	Object is improved with respect to function, frequency of use, mobility and flexibility, physiological, personal and social context, longevity of object, sustainability, economics, safety.	Object is improved for user in relationship to function and a few additional factors.	Basic function and purpose of object are met.	Object makes limited improvements in the function and/or purpose.
Criteria C: Aesthetic impact	Object enhances experiences with respect to initial/visceral response, makes cultural connections, universal appeal, personal preference, relates to surrounding contexts, positive psychological impact, relationship with site/place, triggers multiple senses.	Object enhances experience with respect to a few areas of aesthetic response	Object has little affect on experience – focus is on meeting basic needs.	Object affects experience at a minimal level of interaction.
Evaluation of object and reflection	Uses multiple areas and criteria to evaluate user needs, function and experience with object; able to use feedback and best of ideation to integrate into next phase of object development.	Uses multiple criteria to evaluate user needs, function and experience with object; able to use feedback to make recommendations on object development.	Uses few areas to evaluate user needs, function and experience to make changes in object.	Uses evaluative tools in a minimal manner to make changes in object.

Innovation-based Assessment Rubric

	Exemplary	Proficient	Emerging	Basic
Benefit to the producer (artist/designer/ manufacturer) of the object	Object is efficient use of materials and resources, safety, repair, longevity of object, efficient use of transportation, packaging, installation; social justice for workers.	Object encompasses some aspects of efficient use of materials and resources, safety, repair, longevity of object, efficient use of transportation, packaging, installation; social justice for workers.	Object represents few aspects of efficient use of materials and resources, safety, repair, longevity of object, efficient use of transportation, packaging, installation; social justice for workers.	Object is inconsistent use of materials and resources; creates concerns for safety, repair, longevity of object, efficient use of transportation, packaging, installation; exploits workers.
Benefit to the user/ audience	Object improves life of user, enhances experience, safety, work/leisure, social justice for user.	Object improves some aspects of user's life, experience, safety, work/leisure, social justice for user.	Object attends minimally to some aspects of user's life, experience, safety, work/leisure, social justice for user.	Object has minimal affect to improve life for user; may have some negative impact on experience, safety or exploits user.
Ecological responsibility of object and process throughout life cycle of object	Object attends to sustainable design, life-cycle of object and materials, reduce/reuse/ recycle.	Object attends to most aspects of sustainable design, life-cycle of object and materials, reduce/reuse/recycle.	Object attends to few aspects of sustainable design, life-cycle of object and materials, reduce/reuse/recycle.	Object has limited positive effect on environment; may be destructive to environment or misuse of resources.
Design innovation	Object reflects best solutions, smart-development, best uses of old and new technologies affecting function, appearance, and resources.	Object reflects some new solutions, smart-development, best uses of old and new technologies affecting function, appearance and resources.	Object reflects few new solutions, smart-development, best uses of old and new technologies affecting function, appearance and resources.	Object reflects limited best solutions, smart-development, best uses of old and new technologies affecting function, appearance and resources.
Aesthetic and visual appeal	Object has a strong visceral, emotional, and experiential impact, attends to cultural needs and values, enhances user experiences.	Object has a visceral, emotional, and experiential impact, attends to some cultural needs and values, enhances user experiences.	Object has little visceral, emotional, and experiential impact, does not attend to cultural needs and values, little impact on user experiences.	Object has limited aesthetic experience on user, affect to cultural needs and values.
Clarity of object's intent, meaning, function	Object clearly expresses meaning and function; function is related to ease of use, understanding, safety.	Object expresses meaning and function; function is related to use, understanding, safety.	Object is common in meaning and function; function is weak.	Object possesses limited function; may be dangerous or hazardous.
Evaluation of object and reflection	Uses multiple areas and criteria to evaluate user needs, function and experience with object; able to use feedback and best of all ideation to integrate into next phase of object development.	Uses multiple criteria to evaluate user needs, function and experience with object; able to use feedback to make recommendations on object development.	Uses few areas to evaluate user needs, function and experience to make changes in object.	Use feedback inconsistently for change in object.

Portfolios

Portfolios provide learning opportunities for students to gain an overview of their personal style and growth; to reflect upon and make critical judgments about their own work, just as adult professional do; to revisit and improve past work; and to clarify a direction for future work.

Portfolios are learning/assessment tools intended to contain the "footprints" of a student's work from the beginning of a project to the finish, ranging from early sketches and research for an artwork or design through to the final product; photos of the first attempts to the final product; learning opportunities; revisions; self, peer, and teacher assessments; teacher and peer interviews, etc. It also may contain the student's journal, reflections, notes, and questions to the teacher. Portfolios can show both students' progress and their thinking processes and can form the basis for comprehensive assessment, revealing a complex profile of strengths and areas of challenge, unlike the limited picture provided by a single grade.

Students should use the portfolios to reflect regularly on their work, at times with peers and/or the teacher. From such reflections students can gain a view of creativity and innovation as an ongoing process of insight and continuing revision. Portfolios provide learning opportunities for students to gain an overview of their personal style and growth; to reflect upon and make critical judgments about their own work, just as adult professionals do; to revisit and improve past work; and to clarify a direction for future work.

Learning Profiles

The Learning Profile can provide a learning experience for the student as well as give both teacher and student an indication of the student's progress. It consists of a listing of a projects' intended outcomes. The teacher and student assess the portfolio's collection of work and come to consensus on the student's progress. Having the students state the reasons for their ratings of their work not only gives the teacher valuable insights into the students' understandings, it also is a learning episode for the students. This provides more information to the students and parents than a simple letter grade.

Assessment as a Learning Tool

Assessment serves students best when used as a learning tool. To accomplish this, the threat inherent in the traditional assessment or grading process must be avoided. No matter how non-threatening a teacher intends assessment to be, students still may harbor a sense of anxiety in the traditional testing context. Teachers can avoid this effect through the instructional strategies described earlier that involved students in helping develop the learning targets and in using self, peer, and teacher assessments as learning resources on an ongoing basis during the learning process.

This assessment by the student, coupled with supportive feedback from the teacher and/or peers, can be both an excellent learning event and a direct assessment of student progress toward mastery. As stated before, this serves learning best when used as a series of formative assessments, much as one would consult a map during a journey to make mid-course corrections.

Such positive experiences, plus the fact that the students have become invested in their own learning, promote those motivational factors—the urge to learn, to achieve adult status, to gain a degree of control of their environment. When

a teacher embeds assessment in the instructional task by asking students to assess their own work and by giving weight and guidance to the student's perceptions through supportive feedback, it is an affirmation of their abilities, empowering and motivating them to take increased control of their own learning—an excellent teaching/learning strategy.

Grading Practices

The majority of teachers will, at some determined point in time, need to assign a grade for each student's work in class. The period of time and number of times per school year may fluctuate. However, we can consider strategies which support a model of growth for the learner. Our professional assessment of the concepts reviewed in class can serve to excite student growth or deflate their energy to persist through challenges. The use of embedded assessments, incorporating both formative and descriptive assessments, along with meaningful summative assessments which inform the student and teacher of progress, will support a more transparent educational journey. Surprises at the end of a unit or skill set the learner up for failure. Continuous dialog, student self-reflection, teacher descriptive comments, and peer feedback foster an environment of growth. In addition, including learners in the setting of objectives and measures with periodic checks of progress will support a more transparent and successful environment for learning.

Continuous dialog, students self-reflection, teacher descriptive comments, and peer feedback foster and environment of growth.

If art and design educators are to help students become self-sufficient, active learners directing their own learning, teachers must focus on mastery of understandings instead of on grades by involving students actively in the teaching/learning/assessment processes of:

- setting criteria;
- developing rubrics;
- making artistic decisions;
- assessing themselves and peers; and
- using the results to redirect efforts and increase achievement.

Depending on the number of students and teacher time, the grading process might conclude with a student–teacher conference or simply the students' critiques of their work that the teacher reviews. A learning profile is an efficient method for this, with teacher and student each rating the student's work and agreeing on the final rating. Portfolio reviews are also an excellent way to identify the learning peaks and valleys, as well as lessons learned.

The thrust of the whole process is to make the assessment part of the learning and mastery by involving the student. This provides rich, in-depth learning, and a learning profile that is more informative.

The practices suggested represent a major change from the ways grades are currently determined. A strong, positive engagement with students, parents, and the public will be required to achieve acceptance of these new grading practices.

Consistency Beyond the Classroom

Teachers and students can achieve consensus through the student–teacher conference, but what is the assurance that their view of appropriate quality is shared by the larger body of art and design educators? The answer to this important question may well come by adapting a practice already used in juried art exhibitions. Interested art and design educators could come together, study examples of student work, and come to consensus on levels of quality. This would serve as a source both of rater reliability and professional development.

Summary

Following an overview of the different varieties of assessments and their possible effects on learning, this chapter dealt with the content, tools, and process of assessments. Suggested practices involved the students' input along with that of the teacher, creating another learning opportunity for the students. The final section recommended measures for developing consistency in assessments beyond the individual classroom.

References and Suggested Reading

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Logic Puzzles
Logic Puzzles
Illustration
Writing

Art and Design Education for Differing Abilities

9

Introduction
Identifying Needs
Universal Design for Learning
Support
Adaptations

Introduction

Making marks to tell a story has been part of our human life for over 30,000 years, beginning with cave art. Creating the environment for students to have the opportunities to make marks and manipulate materials to tell their story can be challenging when students have widely diverse abilities. Because all students have varying abilities, art and design teachers need to assess student abilities and redesign their teaching methods, materials, and tools to allow all students the independence to participate and create. Planning this work is best done by collaborating with resource persons such as parents, teachers, and support staff to offer the optimum environment for the success of all students. This chapter will focus on multiple ways to engage every student through art.

Identifying Needs

When a student enters the art classroom for the first time, they bring a host of individual learning and behavioral characteristics that may potentially impede or enhance an art experience. Students may display behaviors such as poor attitude about perceived art abilities, behaviors that undermine the flow of the art experience, or inactive or inconsistent participation. Whether the student has a disability or not, student behaviors that present unique challenges for the teacher to properly instruct an art activity, may also restrict the student from successfully accessing their art instruction.

While it isn't necessary to identify teaching strategies per disability, it is important for a teacher to have the knowledge and skills to assess how a student learns and performs on a particular learning task or activity.

There are many adaptations that work well for students identified with particular disabilities; however, oftentimes the same adaptations work well for *everyone* in the art activity. For instance, making both adaptive and regular scissors available to each student provides all students an opportunity to try novel approaches to cutting while providing the adaptive scissors needed by some. To have adapted tools available to all students also helps minimize the stigma of using different tools in front of peers. When an array of tools are

There are many adaptations that work well for students identified with particular disabilities, however, oftentimes the same adaptations work well for everyone in the art activity.

available for all student use, students with disabilities more readily accept them and are more likely to fit in with their peers without disabilities.

Likewise, a curriculum for adaptive art can be rather seamlessly embedded within an existing curriculum. Specific curricula for various disabilities can limit students' potential experiences and outcomes by associating adaptations by disability. Although teachers may feel these pairings to be a good solution, they may limit the teacher's own creative problem solving skills as well as the opportunities offered to the student. Instead, it makes better sense to understand what tasks are necessary for the completion of the art task and then plan for alternative and creative solutions.

Universal Design for Learning

UDL focuses on eliminating unnecessary barriers to learning that are present in many curricula, through the use of one-size-fits-all goals, instructional methods, and materials and assessments.

Planning for students with disabilities in the art room can be an exciting opportunity for art and design teachers to discover ways to expand their activities in new and creative ways for *all* students. An instructional approach, Universal Design for Learning (UDL), focuses on eliminating unnecessary barriers to learning that are present in many curricula, through the use of one-size-fits-all goals, instructional methods, and materials and assessments. Rather than having the teacher and students adapt to the curriculum, UDL advocates adapt the curriculum. It gives all individuals equitable opportunity to access their learning and is a way to plan activities from the presentation of the task, through the creative processes, to formative and summative assessments that engage all students at all levels.

One of the principles of UDL is ***Representation***, which considers how to present the art task to the student to maximize access, taking into account such considerations as student learning styles, prior knowledge, and supports for tactile, visual, and audio necessary for student access to the activity. Multiple means of representation, such as visual information or tactile manipulation of media, can enhance all students' learning opportunities.

Another principle, ***Action and Expression***, refers to the way the student is able to access an art activity with the use of adaptive tools, and how the teacher differentiates the ways the student expresses what they know. For some students, that may mean making choices verbally rather than selecting their choice by touch. For others, it may mean that they are able to work at their own pace, perhaps completing one set of designs instead of three.

The last principle, ***Engagement***, refers to gaining the student's interest in the activity through:

- making the task relevant to the student;
- helping the student maintain interest and persistence in completing the activity;
- helping the student develop coping skills; and
- helping the student develop the skills for self-reflection and assessment (CAST 2011).

By incorporating these principles from the beginning of planning the art task, many students' needs are addressed to ensure that adaptations used in the art classroom become a natural part of the learning environment. As students age, the disparity among their abilities may vary considerably. For instance, their psychomotor abilities may increase while cognitive abilities may have little change. Specific supports per disability level and range of severity, such as online resources or a translated handout for reference material may help to increase a student's successful understanding and completion of the art task. The needs of English language learners and students who are gifted and talented can also be addressed by planning the art curriculum utilizing the principles of UDL. Of course, there may be specific adaptations or modifications for particular students, nonetheless, when the principles of UDL are applied to the curriculum, the adaptations and modifications become part of the overall activity for all.

Support

Collaboration with others is vital to the success of all students with varying abilities and ways of learning in the art room. Special education staff (e.g., SPED teacher, OT-Occupational Therapist, PT-Physical Therapist, SLP-Speech and Language Pathologist, Paraprofessional), parents, school nurse, and counselors can all provide vital support for the art teacher. Classroom teachers may have knowledge about a student who appears to be suddenly failing in class due to issues at home; or, special education teachers may have specific knowledge about a student's disability that may affect how the student processes information and learns in the art room; and SLPs know the best ways to communicate with students who may have communication difficulties. Some good practices to ensure all students are included and teachers should remember to:

- Allow time for providing support to and getting suggestions from special education staff and paraprofessionals, occupational therapists, physical therapists, and speech and language pathologists.
- Arrange for IEP team meetings to review placement changes which will ensure open communication to keep all teachers and staff aware of student challenges and successes.
- Teach students in an art room that is properly prepared to accommodate all student needs.
- Allow for an interactive art gallery to show and explain the abilities that all students possess.
- Use the communication devices and instructional strategies used in the regular education classrooms for students with communication difficulties and engage all students in the use of the appropriate strategies.
- Communicate with parents to allow them the opportunity to know and respond to the work of their child. A portfolio is an ideal vehicle.

Some student imagery may be very telling about situations encountered or anticipated, and an intervention from the proper school staff individual may diffuse or bring to light student educational issues. Many art teachers are aware of the therapeutic benefits of art for dealing with student learning and behavioral issues. Art teachers are not trained as art therapists and should defer those kinds of discussions to the appropriate staff. When a piece of art or an interaction with a student seems to be unusual, the art teacher should seek out additional support from staff to be sure the student has a safe, supportive, and appropriate environment in which to participate.

As students get older, the gaps between cognitive and physical development often increase as compared to their age peers without disabilities. For an art teacher, this can be challenging when selecting activities that fit student's educational needs. Appropriate art activities meet the student's needs and match the student's abilities. Particular situations will make it necessary to equip students with adaptive tools to access the art task independently.

References made to the specific labels of students with disabilities are as current as the date of this publication. Changes are potentially made to the names and definitions of disabilities as more understandings are available through research and experience. All efforts have been made to be current with the present educationally accepted disability titles.

Adaptations

Physical adaptations for art-making need not be an overwhelming issue for the art teacher. If the student is receiving occupational or physical therapy through their IEP, the therapist can be a great resource for offering appropriate adaptive tools for the art task. At times, they may even choose to use the art time as a time for student occupational therapy sessions, an opportunity for the art teacher and student alike. Some students only need to have a few general adaptive tools such as adapted scissors or handgrips that can be universally used on many small tools such as pencils and paintbrushes.

For students with cognitive or learning challenges, directions may need to be presented to them in a handout form, perhaps accompanied with symbols, as students may more readily understand through both the written and the verbal directions. And some students may need to have adapted materials or techniques, as they may have oral issues, or the materials may be too difficult to access from a wheelchair, even with the tray table removed and the student positioned at the table with their peers. Working closely with all the staff members who are involved with the student can significantly reduce frustrations and enhance the student's ability to engage as independently as possible in the art tasks. A good reference for understanding students with disabilities and art making is Reaching and Teaching Students with Special Needs Through Art, (2006) published by the National Art Education Association, written collaboratively by art and special education teachers. See the Reference Section at the end of this chapter for more resources.

Pulling this all together can seem a daunting task, but below are suggestions for planning arts activities that can meet the diverse needs of students through art-making.

ORGANIZE THE CLASSROOM to encourage on-task behavior.

- Be prepared with additional or alternative art making opportunities, and be sure that it is productive for students who have varied attention spans.
- Use layering techniques to continue on-task behavior, use novel tools to capture interest.
- Limit distractions from the hall and from windows.
- Have materials ready, and always place them in the same place.
- Be able to keep track of supplies and tools with containers and other storage.
- Have a consistent routine.
- Prepare students when integrating a student with particular behavior concerns.

ADAPT MATERIALS, lessons, projects, and classroom to include all abilities.

- Consider the possibility of allowing a different activity or different materials for students who have different needs and abilities.
- Use your creative skills to find new materials and interesting combinations of the old ones.
- Allow regular education students to use adaptive tools and materials to take away the oddness of the tools.
- Move desks to allow wider pathways.
- Consider a lower sink or bucket for cleaning hands of students in wheelchairs.
- Provide activities that have a variety of solutions, so that students of all abilities can be successful at various aspects of the activity.

STRUCTURE INSTRUCTION to allow for clarity.

- Use verbal directions, gestures, and display written as well as visual directions (process visuals) for students to refer to (this provides independence and teaches responsibility).
- Use symbols from augmentative communications boards to reinforce directions or vocabulary.
- Vary instruction with demonstrations, role-playing, movement, visual reinforcement, oral and written instruction, and tactile experiences.
- Build upon previous lessons and concepts.
- Have consistency in the lesson delivery – there are many students who cannot adapt to a change in class routine.
- Use verbal and nonverbal praise with the student's name to encourage continued interest and motivation.
- Use a buddy system, both as a means to assist the student with physical needs, but also as an extra set of eyes and ears to understand the activity.

SET CLEAR EXPECTATIONS for your students and their art to promote goals.

- State your expectations, let students know what you want from them, don't make them guess.
- Reinforce rules/consequences by posting and making references to them.
- Reinforce on-task behavior, "I like the way Jane is using her time wisely." "John, I am proud of your hard work!"
- Give honest praise as much as possible for all students who are on task.
- Seek eye contact, use student's name.
- Keep in mind some students may be on medications that may make them lethargic or cause them to exhibit erratic behaviors. Keep in contact with the classroom teacher regarding medications that may affect classroom performance.

ASSESS STUDENT, TEACHER, SELF, AND PEERS to show growth.

- Develop and use project, task checklist, or rubric.
- Have students self reflect and use self-assessment to look for their own growth and improvement.
- Use peer assessment, this will allow students to fix mistakes before the teacher assesses.
- Develop and use questionnaires to learn more about your students' learning styles and preferences, parents can complete questionnaires for students who are not able to respond independently.
- Obtain outside observations to enhance what is visible in class - parents, artist in residence, etc.

Collaboration with other staff can also help the art teacher determine age-appropriate activities that can correlate studies in the general and special education classrooms for continuity across the curriculum and grades. For instance, an important aspect of arts education for students with disabilities is the development of developmental needs. These are listed in the student's IEP, and art and design tasks help students achieve these needs. A listing of common examples follows.

Motor Skills	• Hand-eye Coordination • Fine Motor Muscle Development • Gross Motor Development • Hand Dominance Establishment
Perceptual and Conceptual	• Visual Memory Recall • Body Imagery/Self Awareness (Understanding and the Relationship of Body Parts) • Environmental Awareness (People, Places, Objects, Nature, Seasons, Animals) • Gestalt Formation (Seeing and Perceiving Parts to the Whole) • Figure/Ground Relationships (Identify and Relate Figure to or from Background) • Spatial Relationships • Time and Sequence (Time of Day, Season, Year, Holidays) • Depth Perception (Near/Far, Middle, High/Low) • Color Discrimination • Forms and Shape Discrimination • Amount Discrimination • Directionality (Over/Under, Left/Right, Above/Below, Reversals) • Progression (Left to Right, Top to Bottom) • Classification of Grouping (Likenesses, Opposites)
Work Habits	• Following Directions (Activities that Place Heavy Emphasis on This Need) • Increase Attention Span • Task Organization (Start, Follow Through, Complete) • Independent Work • Work Well in Groups • Care of Materials • Work and Clean-up Procedures
Self-Actualization	• Motion Activities (Good for Emotionally Disturbed and Autistic Student Responses) • Emotional Outlet • Self-Expression • Patience • Leisure Hour Hobbies and Activities • Security-Building Activities (Rhythm and Repetitive Movement Activities) • Active Use of the Intellect • Creative Response • Problem Solving • Good Peer and Interpersonal Relations

Resources, References, and Suggested Reading

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Integration

10

Introduction
Categories of Integration
Planning for Integration
Real-Life Application
Ten Lessons the Arts Teach
21st Century Skills
Computer Technology and Art

Introduction

The goal of this chapter is to provide the impetus for integrating art and design into the fabric of every part of a school's curriculum. The benefits of improved understanding of the elements of art and principles of design for both teachers and students are many. The ever-increasing role of visual communication in every aspect of our lives is, in itself, reason enough for working toward integration. Similarly, every area of the school curriculum can benefit greatly from increased student ability to visualize two- or three-dimensional objects, to use visual images to convey information, use principles of design to create a product, use an understanding of art to convey cultural concepts, etc. For that reason it is important that teachers of art and design develop collegial relations among their peers in other curricular areas and help them use the design process and visual thinking as ways to create deeper learning and higher order thinking.

Broader understandings and deeper insights result when students explore connections among two or more discipline and view them from the different disciplinary perspectives.

The typical art and design teacher, usually working in a situation that is under-resourced in time and materials and with an impossible number of students, might question taking extra time to plan and implement projects that involve other disciplines. Despite such conditions, however, all teachers are motivated by the prospect of greater student learning and motivation, and this is what research into integration has shown. Broader understandings and deeper insights result when students explore connections among two or more disciplines and view them from the different disciplinary perspectives.

Teachers that involve the arts in non-arts subjects tap into the wondrous world of students' imagination and creativity. The enhanced student behaviors found by research of integrative teaching/learning – e.g., cooperation, problem solving, self-initiated learning, motivation, creativity – seem connected to another research finding: When an event, entity, or activity generates positive emotion in the participants, those events, etc. are remembered more easily and more readily influence future actions. Thus, when students use and manipulate non-arts concepts through artistic processes, those understandings and actions assume a deeper and more enduring meaning.

Beyond the improved grasp of concepts in both arts and non-arts disciplines, however, is a second tier of more abstract effects. The thinking skills used in considering the commonalities among disciplines – e.g., problem solving, analyzing and contrasting different perspectives, synthesizing new relationships between ideas, and devising visual representations of all of this – become habits of mind that are transferred to other endeavors and life situations.

An understanding of visual culture also suggests that art and design teachers have great value in the overall operation of the school. To the extent that the culture of the school is affected by its visual environment, the art and design teacher becomes a resident expert in creating and maintaining a positive environment. Some administrators have, in fact, recognized the growing role of art and design teachers as consultants to themselves and other teachers by adjusting their teaching loads and/or eliminating responsibility for supervising children outside of the classroom.

Categories of Integration

In integration it is important that art and design has an equal status with the other involved disciplines. Bresler (1995) describes four general categories that are useful for arts educators in assessing the "fit" of an integrative practice with its goals: subservient, affective, social, and co-equal/cognitive. A situation in which art is used to promote learning and retention in another discipline exemplifies a subservient style of integration. The use of art to change the emotional atmosphere of a classroom is an instance of affective association. Art is sometimes used for social purposes to encourage a feeling of community or promote a shared purpose, as in, for example, a class or school mural project.

In integration it is important that art and design has an equal status with the other involved disciplines.

Co-equal integration occurs when understandings in the involved disciplines are considered equally important for students to achieve. Ideally, integrative learning is synergistic. Learning in one discipline enhances learning in the others, and enlarged understandings are the result.

The Consortium of National Arts Associations describes integrative planning in a more abstract way. They suggest using "the process inherent in the art form such as creating, or responding; a particular work in the art form; aesthetic principles; broad, generative themes; standards in one or more disciplines; key concepts and principles in other disciplines; and shared elements, functions, or contexts across disciplines" (Authentic Connections, MENC 2002, p. 6). They define three integration models of increasing sophistication: Parallel Instruction; Cross-disciplinary Instruction; and Infusion.

Planning for Integration

There are myriad opportunities for the integration of art and design in other subject areas. Integration into language arts instruction is, perhaps, one of the most easily understood. For example, research shows that enhanced reading comprehension and drawing skills result from having students read a story, then draw a picture of it. After thinking a bit about the story and their picture, they again read it and draw. The second drawing is more detailed, and reading comprehension is improved. Similarly, story-boarding, in which students illustrate important points of a story, has the potential to help students understand sequence; concepts of beginning, middle, and end; and the importance of good drawing technique. Student writing can be enhanced by considering how the print appears on the page, how an illustration might aid the reader, and/or whether a graphic representation of a concept or data would be of value.

Math concepts can combine with good artistic skills when elementary students draw a picture of their family (How many? How big – twice as big, half as big? etc.); explore shapes – geometric, symmetrical, and asymmetrical; or use graphics to illustrate quantity, percentage, etc. Visual-spatial aspects of art find important application in higher order math, and involving students in creating visual representations of mathematical patterns, three-dimensional models, tessellations, etc. can increase understanding greatly. The enlightened math

teacher may even discuss with students the ways in which math and art share aesthetic principles.

Physical education, music, technology education, social studies, science, health education, foreign language, environmental education, agriculture, business education, family and consumer education, marketing, and technology are no less fertile grounds for the integration of art and design instruction. Examples of integration in these areas are abundant for teachers who are interested in collaboration for improved instruction.

The following is a suggested planning process for teachers considering integration:

- Share curriculum content.
- Brainstorm curricular connections.
- Generate focus, or essential, questions that apply to both (all) disciplines.
- Create learning goals based on the standards and end products that embody the goals.
- Define learning projects leading to the goals and determine assessment protocols both for the arts and the other disciplines' standards.
- Describe instructional/learning activities in all disciplines.
- Seek further connections between disciplines.
- Consider possible teaching resources appropriate to the projects.

Real-life Applications

In addition to the many benefits students receive through integrating art and design with other disciplines—deeper insights, broadened understandings, higher order thinking skills, etc.—the emphasis on using the arts' understandings and processes in other disciplines is an important preparation for the adult workplace. Cross-disciplinary connections are an important factor in the 21st century world. In science for instance, visuals are used to communicate complex scientific data. Art and design processes are vital aspects of environmental design, agriculture, resource conservation, the health sciences, marketing, and technology design.

The state of Wisconsin has adopted the Career Clusters model to enable students to understand the background they will need for a given career. It is a listing of careers and the complex of skills they require. This is another reason to introduce students to integrative thinking in which they apply art and design knowledge and skills in other disciplines. The Career Clusters lists 208,000 different careers in which the visual arts are an important element.

Examples of careers in which visual art is a factor:

Arts/AV Technology and Communications
Architecture and Construction
Marketing—Sales and Service
Business—Management and Administration
Education and Training
Hospitality and Tourism
Manufacturing
Science
Technology
Engineering
Mathematics

Ten Lessons the Arts Teach

Dr. Elliot Eisner, Stanford University Learning and the Arts (*The Arts and Creation of Mind*, 2002) has developed a list titled 'Cross Boundaries' that can be used as jumping off or talking points for art teachers when conversations with colleagues are beginning. Our focus should always be how students are affected by what we teach and how what we teach will help them develop in a positive manner.

Cross Boundaries include:

- The arts teach children to make good decisions about qualitative relationships.
- The arts teach children that problems can have more than one solution and that questions have more than one answer.
- The arts celebrate multiple perspectives.
- There are many ways to see and interpret the world.
- The arts teach children that in complex forms of problem solving, purposes are seldom fixed, but change with circumstances and opportunity.
- The arts make vivid the fact that neither words in their literal form nor numbers exhaust what we can know.
- The arts teach students that small differences can have large effects.
- The arts teach students to think through and within material.
- The arts help children to learn to say what cannot be said.
- The arts enable us to have experience we can have from no other source and though such experience to discover the range and variety of what we are capable of feeling.
- The arts' position in the school curriculum symbolizes to the young what adults believe is important.

21st Century Skills

The 21st Century Skills Project is another initiative supporting integrative teaching and learning. The listing of skills needed for this century draws heavily on skills from the domain of the arts. The skills, dispositions, and habits of mind deemed necessary for adults in the 21st century, which is of important interest in Wisconsin, coincide with those that flow from a substantive arts education.

These skills, deemed necessary for the work of the 21st century, are grouped under three headings:

Learning and Innovation Skills:

- creativity and innovation
- critical thinking and problem solving
- communication and collaboration

Information, Media, and Technology Skills

- information literacy
- media literacy
- information, communication, and technology literacy

Life and Career Skills

- flexibility and adaptability
- initiative and self-direction
- social and cross cultural skills
- productivity and accountability
- leadership and responsibility

If these skills, readily developed in the arts, are to be applied by students in various domains and life situations, integrating art and design with other disciplines will help students transfer them more easily.

Computer Technology and Art

Because computer technology has become such an important item in the artist's toolbox, it is used extensively in applying art and design practices in related and other fields. As such, it is being treated separately here.

Being able to create and manipulate digital content is an important skill, from drawing on computer graphics programs, through instant prototyping, to editing digital moving images and sound. For example, a script is written for an animated movie; characters are drawn and developed; dialogue, music, and sound are recorded; and special effects are created. All of this is combined onto a timeline using digital editing software and then published on a digital media format or sent to local movie theaters, while at the same time the action figure is being sold in stores and the tie-in toys are promoted at the local fast food restaurant.

All of this is possible because of the ever-changing computer technology landscape. Some of the skills necessary to create such images and objects for our rich visual culture are:

- visualizing design;
- understanding technological systems;
- manipulating digital tools;
- managing a digital workflow;
- functioning with digital interoperability;
- creating, animating, and integrating content;
- rendering, media mastering, and encoding digital formats;
- 3D modeling;
- managing digital assets (materials, textures, models, photographs); and
- respecting digital citizenship (copyright).

Clearly the potential benefits of the integration of art and design instruction into many other parts of the school curriculum and day are great. To the extent possible, the art and design teacher should serve as a resource for ideas of how to improve learning in other subject areas as well as art and design by combining efforts in meaningful ways.

References and Suggested Reading

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Classroom Safety

11

Introduction
Keeping A Classroom Safe
Emergency Action Plans
Equipment, Tools, and Supplies
Art Safety Instruction
Local, State, and Federal Regulations

Introduction

It is a primary duty of every teacher to provide a safe learning environment. For teachers in art and design classrooms, this begins by making certain that the activities planned are age appropriate and the skills required are within reasonable expectations. Any tools and materials to be used must also be evaluated for safety.

The art and design teacher must also understand what makes a classroom a healthy and safe space to teach art. A classroom for teaching art at the high school level may have the same requirements as chemistry or technology education classrooms, while in a room used for primary grade students, the secure storage for scissors may be a significant concern. In either case, teacher, administrator, and custodian need to work together to insure that a safe space for instruction can be provided. Programs or activities that are inherently unsafe should be eliminated, but learning tasks that are part of the district curriculum should never be cut due to poor room maintenance, equipment failure, or the need for reasonable room modifications.

The teacher, administrator, and custodian need to work together to insure that a safe space for instruction can be provided.

It is essential to remember that the art and design teacher is ultimately responsible for the health and safety of children in his or her classroom. Even an injury caused by a student's failure to follow classroom rules or procedures creates—depending on the student's age – some level of liability for the teacher. Further, the fact that a teacher has discussed unhealthy or unsafe classroom conditions with an administrator does not necessarily make him or her less culpable should illness or injury occur.

Keeping a Classroom Safe

Some aspects of keeping a classroom safe can be done at little cost. Working to develop student concern for safety from the first day of class helps set a tone that can eliminate many potential accidents. The teacher might begin by making certain that teacher-student and student-student relationships are positive and supportive. Involving students in the process of identifying potential hazards, in keeping the classroom clean, and in keeping it organized will also help create a sense of shared responsibility.

Posting signs and procedures is a positive way to inform every student of appropriate procedures and behavior. Reviewing what clothing or protective equipment should be worn during various activities is also important. The teacher should also be aware of any possible health issues related to materials commonly brought to class by students.

The teacher must read all product labels for materials used in the classroom so that necessary safety precautions are in place for their use and disposal. Copies of Material Safety Data Sheets (MSDS) for all products being used in the art room should be obtained and the location of the associated MSDS books posted. Instructional manuals for tools and equipment need to be understood by both teacher and student. The teacher should know the requirements for ventilation in the classroom and at reasonable intervals test vents, fans, etc. to make certain they are working.

Emergency Action Plans

Every school building is required to have emergency plans for a variety of circumstances and every teacher needs to review them. Teachers need to know how to exit the building in case of fire, what to do in case of a lockdown or severe weather emergency, the location of material safety documents, and how to get assistance quickly in case of an emergency. In addition, schools are required to train teachers how to respond to issues involving toxic substances and allergic reactions annually.

Does the emergency action plan at your school—

- Explain where to exit the building in the event of fire?
- Designate first aid providers in case a student is bleeding or stops breathing?
- Explain how to provide product information if poisoning occurs?
- Tell you who to contact under various emergency scenarios?
- Provide instructions on what to do after the accident to avoid future problems?

As a teacher you have an ethical responsibility to point out to an administrator any deficiencies in your school's emergency action plans

Equipment, Tools, and Supplies

When students enter a classroom, their natural desire is to handle new materials and try out unfamiliar equipment. Teachers need to think and plan carefully about the storage of art supplies and the placement of tools and equipment used in the classroom. A few of the questions the teacher might ask include:

- Are potentially hazardous materials and tools stored out of view?
- Are all safety devices for tools and equipment in place and operating?
- Are toxic and/or flammable liquids stored appropriately?
- Are all protective devices for the use of toxic materials in place?
- Are any of the materials being used dangerous when mixed or used together?

Teachers should understand the difference between providing materials that are safe to use and the safe use of those materials. The ACMI is a trade group of manufacturers of art materials. This group can help the teacher evaluate what materials are safe to use in the art classroom.

Art Safety Instruction

Before instruction begins in the art classroom, classroom rules should be well established, material safety issues discussed, and correct procedures for the use of tools and equipment reviewed and practiced. In an effort to check students' knowledge of safety, some form of assessment should take place. Assessment may be in the form of oral questions and answers, performance observations, or a written test. Essay questions provide the best feedback to teachers about processes with tools or equipment. Recordkeeping can help the teacher review each student's knowledge. Some questions the teacher might ask him or herself are:

- Are safety methods being taught the best practice?
- Are safety instructions being taught age appropriate for the activity?
- How will you document that students know the safety procedures?

Local, State, and Federal Regulations

Two important agencies in the quest for a safe classroom are the local fire department and the school's insurance company. Both of these resources can be involved in inspections for a variety of potential safety and health hazards. Periodic inspections by the fire department are required, and it is not unusual to see annual inspections made by insurance company inspectors.

Public schools operate under the jurisdiction of the Department of Public Instruction (DPI). DPI has compiled the *Facility Related Information Resources* guide to help teachers and administers locate the correct agency to contact for safety information. The Department of Health Services (DHS) promotes and protects the health and safety of the people of Wisconsin. The Wisconsin Department of Commerce (DOC) has a safety and buildings division that establishes and enforces safety and health standards for buildings. Finally, the Department of Natural Resources (DNR) is responsible for protecting the natural environment in the state. Any one or several of these agencies could be involved in solving safety issues within the classroom or school campus.

Federal regulations for health and safety enforcement come from three different federal agencies. The Occupational Safety and Health Administration (OSHA) is part of the Department of Labor, the National Institute for Occupational Safety and Health (NIOSH) is part of the Center for Disease Control, and the Environmental Protection Agency (EPA) is an independent federal agency. While these agencies are ultimately responsible for the the oversight of a variety of health and safety issues, they are seldom involved in inspecting schools or making safety recommendations.

References and Suggested Reading

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Learning Beyond the Classroom

12

Introduction
Local Initiatives
Advanced Placement Visual Art
International Baccalaureate Visual Art
National Art Honor Society
Scholastic Art Awards
Visioneer Design Challenge
Visual Arts Classic
VSA Wisconsin
Youth Art Month
WASB-WASDA Convention Art Exhibit
SkillsUSA
More Learning Beyond the Classroom

Introduction

There are many opportunities for students to pursue an interest in art and design beyond the classroom. This portion of the guide will list some of the largest and most popular events, clubs, and organizations at the time of its writing. Because new programs present themselves each year, art teachers are encouraged to research art and design opportunities for their students regularly. Should a teacher see a need that is not already answered by an existing program, he or she is encouraged to explore this opportunity to provide a new vehicle for learning.

Local Initiatives

One of the ways in which professional art educators improve their practice is by exchanging ideas with peers. This is particularly true in the area of extra- and co-curricular art programs at the school and district level. Major components of an outstanding program far beyond classroom activities would include students experiences in travel to art museums and galleries, work independently or cooperatively on a variety of projects, participate in community service projects, tutor other art students, and participate in a yearly art show. As an example, students could develop activities based on the

Smithsonian National Museum of the American Indian. Experiences could include visiting local tribal museums, guest speakers, Native American artists, and connecting cultural understandings with visual art activities.

There are many schools throughout Wisconsin that have exemplary programs promoting art and design beyond the school. By maintaining involvement in professional organizations and looking for opportunities to interact with peers, art and design teachers discover new ways to help students learn beyond the classroom.

Advanced Placement Visual Art

Advanced Placement (AP) Studio Art as well as Art History expand and challenge serious high school students to greater depth of learning. Portfolios are developed in Studio Art and an exam is given in Art History to provide a record of learning that is assessed by a national panel of artists/art educators. Levels of achievement are earned and college credits can be acquired based on the quality of work.

The AP Studio Art offers three portfolios: Drawing, 2-D Design, and 3-D Design. The portfolios share a basic three-section structure which requires students to demonstrate competence and understanding of visual concepts, processes, and techniques. Each portfolio asks students to go through the following steps: the process of investigation and discovery in the Concentration section; a depth of understanding in the visual principles and material techniques in the Breadth section; and works that best exhibit a high level of form, technique and content in the Quality section.

The AP Art History is designed to be the equivalent of an introductory college-level art history survey course. It is based on carefully selected reading and writing assignments for students to acquire a more thorough understanding of the visual arts and cultures. Students are engaged in the visual and contextual analysis and critical thinking, learning to understand art within its historical and cultural contexts.

International Baccalaureate Visual Art

The International Baccalaureate aims to develop inquiring, knowledgeable, and caring young people who help to create a better and more peaceful world through intercultural understanding and respect.

To this end, the organization works with schools, governments, and international organizations to develop challenging Visual Arts programs of international education and rigorous assessment.

These programs encourage students across the world to become active, compassionate, and lifelong learners who understand that other people, with their differences, can also be right.

National Art Honor Society

The National Art Honor Society was begun by the National Art Education Association (NAEA) in 1978 to inspire and recognize high school students in the visual arts and to bring excellence in art education to the attention of schools and communities. A separate program for students in grades 7-9, the National Junior Art Honor Society (NJAHS), was developed in 1989 to generate interest in art programs and to inspire and recognize younger art students. NAEA has a booklet and other materials to help local districts develop and maintain NAHS and NJAHS programs.

Scholastic Art Awards

The Scholastic Art Awards is a national program conducted at the state level for students in grades 7 through 12. This is a juried art show with top state winners sent on to the national level competition. The Scholastic awards have been recognizing young, creative talent throughout the U.S. for more than 80 years. The Wisconsin contact for this program is the Education Department of the Milwaukee Art Museum (MAM).

Visioneer Design Challenge

The Visioneer Design Challenge is a statewide learning program and competition sponsored by the Wisconsin Art Education Association (http://www.wiarted.org/) for high school and middle school students interested in design arts. Independent as well as the team work of students use high level problem solving and critical thinking, creative, and imaginative thinking skills - thinking outside the box – to combine visual art and design concepts with information about technology processes in the field of design. This 21st century program connects students and teachers with professional designers in real world problem solving. Challenges are developed by professional designers in their respective area. These challenges cover design in everyday things, design of spaces and places, design for communication and information, and design for human interaction. Design areas are: Animation, Architecture, Digital Photography, Fashion Design, Video Game Design, Graphic Design, Illustration, Point of Purchase, Product Design, Regional Planning, Videography, and Web Design.

Visual Arts Classic

The Visual Arts Classic is a regional and state competition for teams of high school students that is sponsored by the Wisconsin Art Education Association (http://www.wiarted.org/). This is a challenging program providing opportunities for students to connect art history, art criticism, and aesthetics with art production to develop a deeper understanding of the creative art process itself.

Students participate in team problem solving processes that assess their knowledge and skills in addressing real-life issues in the world related to aesthetic decision making and critical thinking in the arts.

VSA Wisconsin

The Very Special Arts is a national program that began in response to individuals who indicated that they were looking for a place where they could be involved in arts programs, meet new people, and share in the artistic process with others.

VSA Wisconsin uses visual art to celebrate the creative power and artistic accomplishments of children and adults with disabilities. Artist residencies, creative art classes, and workshops provide an outlet for creative expression and unlimited possibilities for personal, academic, and professional success.

Exhibitions showcase the talents of people with disabilities. Professional development for educators, artists, and organizations provides adaptive arts training and inclusion strategies.

Youth Art Month

Youth Art Month (YAM) is a national and state celebration of the visual arts for elementary, middle, and high school students. Conceived in 1961, this celebration occurs annually during March at local, regional, and state levels with various exhibitions, featured artists, art competitions, and award ceremonies recognizing and advancing the role of visual art and design in schools. The Wisconsin Art Education Association coordinates YAM in Wisconsin and hosts a juried student art exhibit in the State Capitol Rotunda yearly. Wisconsin is nationally recognized each year for having one of the best statewide programs in observance of Youth Art Month.

WASB-WASDA Convention Art Exhibit

The Wisconsin Association of School Boards (WASB) and Wisconsin School District Administrators (WASDA) sponsor a student art exhibit in January at their state convention. The purpose is to demonstrate the art and design being created in the schools throughout Wisconsin. A yearly visual art and design problem is developed by the Wisconsin Art Education Association chairperson for students across the state to solve. Three works of art representing each participating school are submitted to the competition. The works are juried by artists and art educators. Monetary awards are given by the Wausau Insurance Company and all works of art submitted are exhibited at the convention.

SkillsUSA

SkillsUSA (www.skillsusa.org) is a partnership of students, teachers, and industry working together to ensure America has a skilled workforce. SkillsUSA helps each student excel. SkillsUSA is a state and national nonprofit organization serving middle and high school students and teachers who are preparing for careers in trade, technical and skilled service occupations.

The philosophy of the Championships is to reward students for excellence, to involve industry in directly evaluating student performance, and to keep training relevant to employers' needs.

Competitions include: 3-D Visualization and Animation, Advertising Design, Photography, Pin Design, Sustainability Solutions, T-shirt Design, Television (Video) Production, Video Product Development, Web Design, and Welding Art/Sculpture.

More Learning Beyond the Classroom

In addition to the programs noted above, art and design teachers are encouraged to use field trips to design centers, museums, and local studios and related art and design venues (Harley Davidson Museum, Trek Bicycle Co., Taliesin) to expand students' understanding of the world of art and design. Bringing local artists to the classroom also can expand student understanding of careers in art and design. It allows them to see professionals engaged in the process of solving problems and creating works of art and design.

Appendix A

Aesthetics

A

Aesthetics has been a factor in art since prehistoric cultures carved images or painted on cave walls. Over the centuries it has been defined variously, but this guide regards it as a person's or culture's system of beliefs about beauty, and, in art, to certain qualities that reside in an artwork or performance, such as: the "elegance" of its structure; how well the elements of art and principles of design are related and contribute to the effect of the whole; the use of subtlety and nuance, and whether deeper levels of meaning can be apprehended with repeated contacts. Aesthetics so defined applies to all disciplines – art, design, math, science, music, theatre, dance, creative writing, etc. This chapter will discuss the role of aesthetics in human development and how it can be taught and learned in the normal work of the art and design classroom.

The ability to perceive and express the arts' deeper meanings and its beauty adds a vast dimension to one's life and is an important factor in realizing fully one's potential (Reimer, et al. 2000).

All human endeavors involve the cognitive domain, and most areas of the curriculum deal exclusively with it. By contrast, the arts involve not only cognitive and psychomotor domains, but also the affective. This is the domain of values and involves one's response to the aesthetic dimension—the creator's expressive use of a particular element of art and principle of design. For this reason, many leaders in arts education make the case that arts in the schools should include a strong element of aesthetic education, a heightening of students' awareness of and response to the aesthetic qualities in the arts, the environment, and in life. An aesthetically aware person will experience all of life at deeper levels than one not so equipped.

Why is an understanding of aesthetics important for students? An important aspect of the intrinsic value of all the arts is the arts' contribution to one's self-realization and fulfillment, attributes of all highly functioning individuals. Two related traits developed in self-realization are students' creative and aesthetic potentials, and to realize fully one's capacity, these traits must be cultivated, which the arts are uniquely able to do. In the arts there are very few absolutely right or wrong answers. The resulting ambiguities that arise foster a unique order of thought processes involved in problem solving – flexibility, fluency, originality, and elaboration. These are important elements of creative thinking, a vital characteristic in both self-realization and in our modern world. Aesthetic awareness, the ability to grasp the expression of meaning and beauty through line, value, shape, and color in artworks and in one's daily life, fulfills a similar role. And among all the subjects in the curriculum, the arts alone emphasize the creative act and the aesthetic domain.

In the arts, aesthetics, creativity, and expressivity are closely linked. The greater the artist's knowledge of aesthetic qualities, the more the artist can use them creatively to express the work's import. Expression of meaning is central to the arts, and the elements and principles of a given art are the basic vocabulary through which the meaning is expressed. Just as a 'how-to' manual differs aesthetically from prose that uses such figures of speech as alliteration,

But even with the beauty and the power of the written and spoken word, our miraculous use of language was incomplete. For the most intimate, most profoundly moving universal experiences, we needed a more subtle, a more sensitive set of symbols than the written word and the spoken word. And this richer language we call the arts.

– Ernest Boyer

metaphors, and imaginative motifs, so creative and nuanced use of the elements of art and principles of design can create an aesthetically satisfying work that expresses deep and insightful meanings. Indeed, the richer the aesthetics of a work, the more expressive it is.

Teaching for Aesthetic Awareness

Although aesthetics is an important part of the disciplinary knowledge of art and design it is often not well understood or taught. Instead, the technical demands of the arts often dominate instruction in the classroom. This section suggests a practical approach to help students develop an enhanced aesthetic awareness through the normal work of the art and design classroom.

The key to awareness of aesthetic properties in an artwork is the artist's use of the elements of art and principles of design. Aesthetic awareness might begin early with teacher-led discovery sessions. Such questions as: What do you see?, Do your eyes seem to be drawn to a particular part of the painting?, Why?, What do you like about it?, and Why? In such discussions the teacher should link student responses to the inner architecture of the artwork. The same strategy applies to the area of design. Such sessions can enhance students' awareness of the elements and principles and artists' and designers' expressive use of them.

As students gain in their ability to detect and to use aesthetic qualities in their art and design making, their expressive use of the elements and principles will become more reflexive. This growing automaticity is a correlate of "thinking in the discipline."

Recap

By observing and analyzing works of artists in teacher-or student-led discussions, students can learn how to use the elements of art and principles of design to create aesthetically rich and expressive works. Such analysis gives students the background to self-assess and improve their own work in the manner of adult artists, as well as equipping them to make informed decisions in art and design whether they pursue either as a career. Further, learning these

systems of expression can be life changing, enriching one's perceptions and experiences in the everyday world.

Appendix B

Gifted and Talented Students in Art and Design

B

The Gifted and Talented Art and Design Student

What does this classification really mean? The typical understanding of this classification is that when it comes to the general academic areas, students are identified as gifted. When it comes to the arts, the talented classification takes over. Art teachers do not accept the classification of talented because we know that giftedness in art and design is not any different than giftedness in math or science. It is a gift, not just a talent. It involves the intellectual, emotional, social, and physical abilities of individuals. Art involves the use of the mind, hands, heart, and body. It is an all-inclusive discipline that involves deep commitment, hard work, research, high level thinking, and the ability to be open to new ideas and situations. It is highly imaginative and creative while, at the same time, academic subject.

It was Howard Gardner who revolutionized the way we think about intelligence. In *Frames of Mind* (1983), he identified seven intelligences – including intelligences related to the arts. On that basis, he studied the creativity of seven gifted individuals: Sigmund Freud, Albert Einstein, Pablo Picasso, Igor Stravinsky, T.S. Elliot, Martha Graham, and Mahatma Gandhi. Documented in the book, art and design educators are encouraged to discover for themselves the connections between the arts and creativity in Gardner's resulting book, *Creating Minds* (1994).

Identifying Gifted and Talented Students

The following three categories will help you identify and provide a richer education for the gifted student in your classes. One thing to remember is that all of the traits and characteristics will vary from student to student. There is no one formula for all students. Students may operate well in one area and not another. Some students will be strong in both the traditional academic areas as well as the arts, and others might be strong only in the arts.

1. Behavioral Traits:

Behavioral traits serve as one of the indicators to help assess whether students are gifted and talented in visual art and design. These traits will vary

from student to student. Whether students are introverted or extroverted, analytical or creative and intuitive, these indicators help to determine their giftedness. Some students may appear bored or not engaged – even disruptive, but may indeed be very gifted but waiting to be challenged.

2. Thinking Skills:

Gifted and talented art students visualize multiple solutions to problems and can take charge of their own learning. These solutions could be analytical or highly creative in nature, both are intelligences in their own right and need to be explored. Students who think outside the box, solve problems in a unique, highly creative, imaginative manner are generally gifted in visual art and design.

3. Artwork Indicators:

Artwork indicators demonstrate a student's technical facility, creativity in approach, sophistication in use of materials, tools and medium, as well as the overall proficiency in the art-making process. This can be observed in the level of challenge the student has selected, as well as unique and/or ambitious solutions to the problem. Using a range of resources such as student journals, intent statements, sketchbook entries, critiques, and a well developed range of student work in a portfolio makes it easier to identify giftedness.

Clearing a Path for Students

Differentiating the curriculum to allow students to create freely – removing obstacles to allow learning to take place – clears a path for students. This allows the student to reach beyond the overall classroom expectations or assignments. It may include eliminating prerequisites, changing classroom requirements/expectations, providing space and time for work, allowing the student to take charge of his learning in order to achieve the highest level of creativity and proficiency.

Multi-layered Art Experiences

Providing rich opportunities for creative development is critical in developing the gifted and talented student. New, exciting, and informative experiences such as museum visits and field trips to art and design related businesses can help. Other curriculum extensions include interning with an artist/designer, Youth Art Month activities, art competitions, Advanced Placement in Visual Art and Design, Visual Art Classic, Visioneer Design Challenge, Scholastic Art, and other art groups. All of these activities increase the creativity and aesthetic understanding of students.

Guidance by the Art and Design Teacher

All students need guidance from their art and design teacher – not excessive control on their direction. Creative expression will rise to new levels with the gifted student when that student defines his or her own goals and directions, brainstorms new ideas, becomes involved in inquiry and investigation in order to problem solve and arrive at creative solutions.

Expectations

It is important to monitor student progress in order to be certain they reach their highest level of proficiency, but it is a particularly critical element when working with gifted students. They need to be encouraged to take charge of their total learning experience – including the planning, research, and on-going self-assessment. Assessment techniques should include peer and small group discussions, the critiquing of their own work as well as that of others.

Documentation

Documentation of learning so that the gifted student can see his or her progress not only increases motivation, but also helps increase creativity. Journals, sketchbooks/idea books, portfolios/videos of work, exhibitions, and interdisciplinary events can all help provide the documentation about student learning.

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Appendix C

Resources

C

AIGA-Wisconsin (American Institute of Graphic Arts)
6650 W. State Street, Unit D #171
Milwaukee, WI 53213
www.wisconsin.aiga.org

Alarion Press
P.O. Box 1882
Boulder, CO 80306-1882
(800) 523-9177
Fax (303) 443-9098
www.alarionpress.com

The American Architectural Foundation
1779 New York Avenue, NW
Washington, DC 20006
(202) 626-7318
Fax (202) 626-7420
www.archfoundation.org

American Association of Museums (AAM)
1225 Eye Street, NW
Suite 200
Washington, DC 20005
(202) 289-1818
www.aam-us.org

The American Institute of Architects (AIA)
1735 New York Avenue, NW
Washington, DC 20006-5292
(800) AIA-3837
Fax (202) 626-7547
www.aia.org

American Society of Interior Designers (ASID)
608 Massachusetts Avenue, NE
Washington, DC 20002-6006
(202) 546-3480
Fax (202) 546-3240
www.asid.org

American Society of Landscape Architects (ASLA)
636 Eye Street, NW
Washington, DC 20001-1185
(202) 898-2444
Fax (202) 898-1185
www.asla.org

American Art Clay Co., Inc. (AMACO)
6060 Guion Road
Indianapolis, In 46254-1222
(317) 244-6871
(800) 374-1600
Fax (317) 248-9300
www.amaco.com

American Association of Museums
1575 Eye Street, NW #400
Washington, DC 20005
(202) 289-1818
www.aam-us.org

Museum of Arts & Design
2 Columbus Circle
New York, NY 10019
(212) 956-3535
http://madmuseum.org/

American Craft Council
1224 Marshall Street, NE
Suite 200
Minneapolis, MN 55413-1036
(612) 206-3100
Fax (612) 355-2330
www.craftcouncil.org

Americans for the Arts
www.artsusa.org

Anderson Arts Center
121 66th Street
Kenosha, WI 53143
(262) 653-0481
Fax (262) 657-2526
www.andersonartscenter.com

Architectural Digest
www.architecturaldigest.com

Art Image Publications
P.O. Box 160
Derby Line, VT 05830
(800) 361-2598
www.artimagepublications.com

Arts and Activities Magazine
12345 World Trade Drive
San Diego, CA 92128
www.artsandactivities.com

Arts Education Partnership
One Massachusetts Ave., NW
Suite 700
Washington, DC 20001-1431
(202) 326-8693
Fax (202) 408-8081
www.aep-arts.org

Artsonia
1350 Tri-State Parkway, Suite 106
Gurnee, IL 60031
www.artsonia.com

Arts Wisconsin
P.O. Box 1054
Madison, WI 53701-1054
(608) 255-8316
www.artswisconsin.org

The Art and Creative Materials
Institute, Inc. (ACMI)
100 Boylston Street
Suite 1050
Boston, MA 02116
www.acminet.org

Arts Midwest
2908 Hennepin Avenue
Suite 200
Minneapolis, MN 55408-1954
(612) 341-0755
Fax (612) 341-0902
www.artsmidwest.org

ASCD
1703 North Beauregard
Alexandria, VA 22311-1714
(800) 933-ASCD (2723)
Fax (703) 575-5400
http://www.ascd.org/Default.aspx

Bergstrom-Mahler Museum
165 N. Park Avenue
Neenah, WI 54956
(920) 751-4658
www.bergstrom-mahlermuseum.com

Cedarburg Cultural Center
W62 N546 Washington Avenue
Cedarburg, WI 53012
(262) 375-3676
Fax (262) 375-4120
www.cedarburgculturalcenter.org

Center for Understanding the Built Environment (CUBE)
2040 N. Norton Avenue
Tucson, AZ 85719
(913) 486-5265
www.cubekc.org

Charles Allis Art Museum
1801 N. Prospect Avenue
Milwaukee, WI 53202
(414) 278-8295
http://www.cavtmuseums.org/

Chazen Museum of Art
800 University Avenue
Madison, WI 53706
(608) 263-2246
www.chazen.wisc.edu

Cinefex Magazine
79 Daily Drive #309
Camarillo, CA 93010
(805) 383-0800
www.cinefex.com

College Art Association
50 Broadway, 21st Floor
New York, NY 10004
(212) 691-1051
Fax (212) 627-2381
www.collegeart.org

Communication Arts (CA) Magazine
110 Constitution Drive
Menlo Park, CA 94025
(650) 326-6040
Fax (650) 326-1648
www.commarts.com

Cooper-Hewitt National Design Museum
2 East 91st Street
New York, NY 10128-0669
(212) 849-8420
Fax (212) 849-1549
www.cooperhewitt.org

The College Board
Advanced Placement Program in the Arts
P. O. Box 6670
Princeton, NJ 08541-6670
www.collegeboard.org

Crizmac
P.O. Box 65928
Tucson, AZ 85728-5928
(800) 913-8555
Fax (520) 323-6194
www.crizmac.com

Crystal Productions
Box 2159
Glenview, IL 60025
(800) 255-8629
Fax (800) 657-8149
www.crystalproductions.com

Cue
www.cue.org
Davis Publications, Inc.
50 Portland Street
Worchester, MA 01608
(800) 533-2847
www.davisart.com

Design Madison
www.designmadison.com

Dick Blick Art Materials
P.O. Box 1267
Galesburg, IL 61402-1267
(800) 723-2787
www.dickblick.com

Dillman's Creative Arts Foundation
P.O. Box 98
Lac du Flambeau, WI 54538
(715) 588-3143
www.dillmans.com

Entertainment Designer
www.entertainmentdesigner.com

Folklore Village
3210 Cty. Hwy. BB
Dodgeville, WI 53533
(608) 924-4000
www.folklorevillage.org

Great Lakes Inter-Tribal Council
2932 Highway 47N
P.O. Box 9
Lac du Flambeau, WI 54538
(715) 588-3324
www.glitc.org

Haggerty Museum of Art at Marquette University
13th & Clybourn Streets
Milwaukee, WI 53233
(414) 288-1669
haggertym@marquette.edu
http://www.marquette.edu/haggerty/

Harvard Project Zero
Harvard Graduate School of Education
124 Mount Auburn St., 5th Floor
Cambridge, MA 02138
(617) 495-4342
http://www.pz.harvard.edu/

HOW Magazine
P.O. Box 420235
Palm Coast, FL 32142-0235
(386) 246-3365
www.howdesign.com

Industrial Designers Society of America (IDSA)
www.idsa.org

John Michael Kohler Arts Center
608 New York Avenue
P.O. Box 489
Sheboygan, WI 53082-0489
(920) 458-6144
www.jmkac.org

The Kennedy Center Alliance for Arts Education Network
The John F. Kennedy Center for the Performing Arts
2700 F. Street, NW
Washington, DC 20566
(800) 444-1324
www.kennedy-center.org/education/kcaaen

Kohler Design Center
101 Upper Road
Kohler, WI 53044
(920) 457-3699
www.us.kohler.com

Kohler Foundation, Inc.
725 X Woodlake Road
Kohler, WI 53044
(920) 458-1972
www.kohlerfoundation.org

George W. Brown, Jr. Ojibwe Museum and Cultural Center
603 Peace Pipe Road
Lac du Flambeau, WI 54538
(715) 588-3333
http://www.ldfmuseum.com/

Leigh Yawkey Woodson Art Museum
700 N. 12th Street
Wausau, WI 54403-5007
(715) 845-7010
http://www.lywam.org/

Madison Museum of Contemporary Art
227 State Street
Madison, WI 53703
(608) 257-0158
www.mmoca.org

Milwaukee Art Museum
700 N. Art Museum Drive
Milwaukee, WI 53202
(414) 224-3200
www.mam.org

Museum of Wisconsin Art
300 S. 6th Avenue
West Bend, WI 53095
(262) 334-9638
www.wisconsinart.org

NASCO
901 Janesville Avenue
P.O. Box 901
Fort Atkinson, WI 53538-0901
(800) 558-9595
Fax (800) 372-1236
http://www.enasco.com/

National Endowment for the Arts
1100 Pennsylvania Avenue, NW
Washington, DC 20506
(202) 682-5400
www.nea.gov

National Art Education Association
1806 Robert Fulton Drive, Suite 300
Reston, VA 20191
(703) 860-8000
Fax (703) 860-2960
www.arteducators.org

National Telemedia Council (NTC)
1922 University Avenue
Madison, WI 53726
(608) 218-1182
www.nationaltelemediacouncil.org

National Trust of Historic Preservation
1785 Massachusetts Ave., NW
Washington, DC 20036-2117
(202) 588.6000
www.preservationnation.org

Paine Art Center
1410 Algoma Blvd.
Oshkosh, WI 54901
(920) 235-6903
www.thepaine.org

Prentice Hall
www.prenticehall.com

Print Magazine
www.printmag.com

The Pump House Regional Arts Center
119 King Street
La Crosse, WI 54601
(608) 785-1434
www.thepumphouse.org

Racine Art Museum
441 Main Street
Racine, WI 53403
(262) 638-8300
www.ramart.org

Rahr-West Art Museum
610 N. Eighth Street
Manitowoc, WI 54220
(920) 686-3090
www.rahrwestartmuseum.org

Sax Arts & Crafts
(888) 388-3224
www.saxarts.com

School Arts Magazine
50 Portland Street
Worchester, MA 01608
(800) 533-2847

SIGGRAPH
www.siggraph.org

Skutt Ceramic Products, Inc.
6441 S.E. Johnson Creek Blvd.
Portland, OR 97206
(503) 774-6000
www.skutt.com

Wisconsin Historical Society
816 State Street
Madison, WI 53706
(608) 262-1339
www.wisconsinhistory.org

Taliesin
5607 Cty. Rd. C
Spring Green, WI 53588
(608) 588-7090
www.taliesinpreservation.org

TED Conferences
www.ted.com

The Miller Art Museum
107 S. 4th Avenue
Sturgeon Bay, WI 54235
(920) 746-0707
www.millerartmuseum.org

The Milwaukee Artist Resource Network
(414) 305-2109
www.MARNonline.com

The Phipps Center for the Arts
109 Locust Street
Hudson, WI 54016
(715) 386-2305
www.thePhipps.org

University & College Designers Association (UCDA)
199 W. Enon Springs Road, Suite 300
Smyma, TN 37167
(615) 459-4559
www.ucda.com

Villa Terrace Decorative Arts Museum
2220 N. Terrace Avenue
Milwaukee, WI 53202
(414) 271-3656
http://www.cavtmuseums.org/

VSA Wisconsin
1709 Aberg Avenue, Suite 1
Madison, WI 53704
(608) 241-2131
www.vsawis.org

The Eisner American Museum of Advertising and Design
208 N. Water Street
Milwaukee, WI 53202
(414) 847-3290
www.eisnermuseum.org

Wired Magazine
www.wired.com

Wisconsin Academy of Sciences, Arts and Letters
www.wisconsinacademy.org

Wisconsin Alliance for Arts Education
www.waae.org

Wisconsin Art Education Association
www.wiarted.org

Wisconsin Arts Board
P.O. Box 8690
Madison, WI 53708-8690
(608) 266-0190
www.artsboard.wisconsin.gov

Wisconsin Cultural Coalition
www.portalwisconsin.org

Wisconsin Designer Crafts Council
3900 West Brown Deer Road, Suite A
PMB 130
Milwaukee, WI 53209
www.wdcc.org

Wisconsin Department of Public Instruction (DPI)
125 S. Webster Street
P.O. Box 7841
Madison, WI 53707-7841
(800) 441-9563
http://dpi.wi.gov

Wisconsin Film Festival
1050 University Avenue
Madison, WI 53706
(877) 963-3456
www.wifilmfest.org

Wisconsin Humanities Council
222 S. Bedford Street #4
Madison, WI 53703-4028
(608) 262-0706
www.wisconsinhumanities.org

Wisconsin Society of Architects
321 South Hamilton Street
Madison, WI 53703-4000
(608) 257-8477
www.aiaw.org

Wisconsin Visual Artists
www.artinwisconsin.com

Appendix D

Design Course Model: The Visioneer Design Challenge

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Course Purpose: To engage students in solving world of work design problems so relevant to the 21st century in an imaginative, creative, and high aesthetic level employing the skills, tools. and programs necessary.

COURSE DESCRIPTION: The Visioneer Design Challenge program can be turned into a design course in your art and design curriculum. Depending on the grade level, it can be used in its entire form or parts of it can be selected to be taught. This program covers everything that is current in the 21st century life of students and pertinent to preparing all students for the ever-changing technological future. It can be taught at every grade level depending upon how the teacher presents and redefines the concepts and processes to be learned and the age of the students.

The unique thing about this course is that the problems or challenges are not established by the teacher but by a design professional in each particular field. These are real world of work problems that they face every day. It is a highly challenging creative process of learning that lifts students ability levels and thoroughly makes them responsible for their own learning. This concept may be new to some teachers but it is a highly successful way of teaching and learning.

The teacher guides the students through these processes encouraging them to:

- question, identify, and seek new answers to solve the problems,
- extend their learning beyond the classroom working within their community and school to seek people who are engaged in this design process as well as knowledgeable with specific technological skills, and
- seek out information on the web or in publications on these topics in order to develop a design project that is unique to that student's way of thinking and learning.

There are 12 design challenges yearly: animation, architecture, digital photography, fashion design, graphic design, illustration, point of purchase, product design, regional planning, video game design, videography, and web design.

There is a yearly theme that is provided using relevant topics for the challenges or problems.

Objectives:

The objectives of this course are to:

- change the direction of art education to include ideas, skills, and processes that are relevant and necessary for going forward;
- develop meaningful creative technological processes that are based on sound visual art and design concepts;
- encourage the connection of the professional designers with the art teacher and the students to provide a vehicle for learning with challenging and highly creative/imaginative design processes;
- encourage and motivate students to begin to take charge of their learning regardless of grade level empowering them to think creatively with tools of the 21st century; and
- assist art teachers to provide these design challenges/problems to their students in a highly creative manner and learn these many design processes and skills over the years.

Process:

The art teacher downloads the Visioneer Design Challenge from the Wisconsin Art Education Association website (www.wiarted.org) yearly. This provides the course content and direction.

The teacher works with the students to determine what challenge(s) they will select to solve.

The teacher provides the tools for learning so that students can proceed. Computers and specific programs should be part of the course but do not have to be done in its entirety. For instance, architecture can be taught with boxes at an early level and the concepts of design can be employed per that particular grade level. Illustration can be taught with traditional tools using the design concepts. The teacher might videotape the processes and show techniques on the computer. It is true that more and more schools are becoming more technologically equipped and teachers more fully informed on the skills required.

Guest designers should be invited to the classroom, if possible, so students can learn more about the various design processes. Involvement with design-related groups or people in the community are encouraged. The more resources a teacher can develop or include, the better.

The school does not have to enter the Visioneer Design Challenge program itself, but can just use the program as a design course in the classroom. The choice is entirely up to the teacher.

The main message is: Don’t be afraid of working with these design challenges. Both the teacher and students will grow, and the art program will be providing relevant information to students to give them a solid background in the design processes of the 21st century.

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