The University of San Francisco

USF Scholarship: a digital repository @ Gleeson Library | Geschke Center

Doctoral Dissertations

Theses, Dissertations, Capstones and Projects

2008

An exploration of self-reflection and critical-thinking exhibited in visual-arts students' portfolios at the secondary level

Barbara Ellen Hughes

Follow this and additional works at: https://repository.usfca.edu/diss

Part of the Education Commons

The University of San Francisco

AN EXPLORATION OF SELF-REFLECTION AND CRITICAL-THINKING
EXHIBITED IN VISUAL-ARTS STUDENTS' PORTFOLIOS
AT THE SECONDARY LEVEL

A Dissertation Presented
to
The Faculty of the School of Education
Learning and Instruction Department

In Partial Fulfillment
of the Requirements for the Degree
Doctor of Education

by
Barbara E. Hughes
San Francisco
December 2008

This dissertation, written under the direction of the candidate's

dissertation committee and approved by the members of the

committee, has been presented to and accepted by the Faculty

of the School of Education in partial fulfillment of the requirements

for the degree of Doctor of Education. The content and research

methodologies presented in this work represent the work of the

candidate alone.

Barbara E. Hughes   December 19, 2008
Candidate   Date

Dissertation Committee

Dr. Patricia Busk   December 19, 2008
Chairperson

Dr. Mathew Mitchell   December 19, 2008

Dr. Caryl Hodges   December 19, 2008

ABSTRACT

An Exploration of Self-Reflection and Critical-Thinking
Exhibited in Visual-Arts Students' Portfolios
at the Secondary Level

The purpose of this qualitative case study was twofold: to obtain an understanding of the perceptions of secondary-school visual-arts teachers in Northern California who have facilitated portfolios of student artwork as an instructional strategy and to investigate students' written reflections on the characteristics and merits of their artwork exhibited in portfolios. In California Public Schools, the problem is that explicit portfolio criteria and performance assessment tools to measure students' mastery of the California Content Standards for the Visual Arts in grades 9 to 12 do not exist to gauge the degree that a student has met the content standards or to the degree that a school or school district has met the content standards.

This study included seven visual-arts teachers at five high schools in Northern California during the Spring of 2008. The results of the data analysis indicated that visual-arts teachers who developed formal methods for his or her students to reflect upon their artwork, allotted instructional minutes for students to write about their artwork, and provided instructional or assessment materials that ranged from less complex cognitive processes to more complex cognitive processes as an instructional strategy were able to develop students' critical-thinking abilities. Six of the seven visual-arts teachers instructional and assessment materials provided evidences of opportunities for students to think critically. In addition, the four visual-arts teachers who implemented guidelines for students to create portfolios were able to develop their students' portfolio maturation level at higher stages.

ACKNOWLEDGEMENTS

TABLE OF CONTENTS

TABLE OF CONTENTS CONTINUED

TABLE OF CONTENTS CONTINUED

LIST OF FIGURES

LIST OF TABLES

CHAPTER I

INTRODUCTION

Statement of the Problem

Since the passage of the Elementary and Secondary Education Act (PL 107-110, the No Child Left Behind Act of 2001), better known as No Child Left Behind Act (NCLB), there has been a nation-wide increase in educational accountability; school districts implement content standards developed at the national or state level to define the scope of instruction. Rather than mandating any one curriculum for the visual or performing arts, each state defines the scope of instruction slightly differently from the next. At the federal level, NCLB reaffirms previous federal education policy that the arts should be included as core academic subjects, but NCLB neither mandated arts assessment nor included the arts in the federally mandated accountability systems.

At the State of California level, The California Content Standards for the Visual and Performing Arts (VPA Standards; California Department of Education (CDE), 2004) were adopted by the California State Board of Education in January of 2001, creating a valuable place for the visual and performing arts in education. The VPA Standards, which cover the disciplines of dance, music, theater, and the visual arts, explicitly indicate the content that needs to be considered for inclusion in visual- and performing-arts programs at each grade level, kindergarten through grade twelve (K to 12). The curricula for standards-based arts programs should be articulated through all grade levels K to12 so that all students achieve the beginning or proficient levels of the content standards. The California Content Standards for the Visual Arts (VA Standards) are comprehensive and specific at the beginning and advanced levels. The Visual- and

Performing-Arts Framework for California Public Schools (CDE, 2004) clearly indicates that

> Teachers should provide students with a variety of opportunities to meet the content standards and help students prepare portfolios of their work for personal use, for use in applying to postsecondary institutions, or for career presentations and exhibitions. (p. 163)

In California Public Schools, the problem is that explicit portfolio criteria and performance assessment tools to evaluate students and to measure students mastery of the VA Standards in grades 9 to 12 do not exist to gauge the degree that a student has met the content standards or to the degree that a school or school district has met the content standards. Without effective tools and procedures for assessment and accountably, it is difficult to determine if a visual-arts curriculum is aligned and focused in ensuring that all students meet VA Standards in grades 9 through 12 in California.

For many years, creative professionals, such as photographers, designers, and architects, have developed portfolios to display their unique skills and creative achievements. Many educational institutions, as well as employers, review portfolios to gain insight into the candidate's academic, artistic, or personal qualities. Wiggins (1998) reported that authentic assessments should engage students in applying knowledge and skills in the same way they are used in the real world, such as a portfolio. Portfolios are an essential instructional method to develop students' visual arts-content knowledge, creative skills, and to reflect upon their work. A portfolio is authentic to real-world demands, opportunities, and constraints.

Purpose of the Study

The primary purpose of this study was to obtain an understanding of the perceptions of secondary-school visual-arts teachers in Northern California who have

facilitated portfolios of student artwork as an instructional strategy to encourage students'

reflective-thinking skills and critical-thinking abilities and to explore students' written

reflections upon the evolving quality of their artwork exhibited in their portfolios. At the

secondary level (grades 9 through 12), the term visual arts (VA) encompasses a broad

array of beginning- to advanced-level courses, including but not limited to drawing,

painting, ceramics, photography, jewelry, sculpture, crafts, photography, and digital arts.

My intent was to investigate how visual-arts teachers implement portfolios of student

artwork in a variety of VA courses and to what extent portfolios demonstrate students'

self-reflection skills and critical-thinking abilities using field observations, documents,

examination of portfolios of student artwork, and face-to-face interviews with visual-arts

teachers at the secondary level.

This qualitative study was designed to collect detailed information about the

different approaches of secondary-level visual-arts teachers in Northern California who

have facilitated student portfolios not only to develop student art-content knowledge and

creative skills but also to develop students' self-reflection and critical-thinking abilities.

Recognizing the impact of the portfolio development process as an instructional strategy

that promotes students' reflective-thinking skills and critical-thinking abilities, I explored

the perceptions of secondary-level visual-arts teachers who encouraged students to reflect

upon the evolving quality of their artwork exhibited in their portfolio. The research areas

were derived from previous studies on portfolios (Barrett, 2007; Brown, McCrink, &

Maybee, 2003; Juneiwicz, 2003), assessment in the visual arts skills (Blakie, Schunau, &

Steers, 2004; Dorn, 2003; Dorn, Madeja, & Sabol, 2004; Dorn & Sabol, 2006; Pereira de

Eca, 2005), the effects of visual-arts instruction on critical-thinking (Lampert, 2005, Shin, 2002), and case study research methodologies (Bogdan & Biklen, 2003).

The underlying purpose of case study research (Bogdan & Biklen, 2003) is to capture the point of view of one or more individuals through a variety of data-collection procedures in order to deepen understanding. The case study method provided the researcher with the opportunity to gather descriptive information using a variety of data-collection procedures. Instead of studying one high school, for example, I observed five high schools that represented a variety of public secondary schools in different settings (urban, suburban, and rural areas) in Northern California. The case study approach allowed me to focus on seven secondary-level visual-arts teachers, observe the participants (visual-arts teachers and students) in their natural settings (visual-arts classrooms), provided opportunities for interviews, the inspection of documents (student portfolios), collection of documents (course descriptions, lesson plans, rubrics) and reproduction of documents (digital photographs). Because students in a classroom often create portfolios, I observed the natural settings in which the creation of portfolios takes place: secondary-level visual-arts classrooms. One-on-one interviews with open-ended questions were conducted and recorded with each of visual-arts teachers. The inspection, collection, exploration, and comparison of documents allowed me to identify themes and patterns that emerged from the data. Recognizing that all methods such as surveys, observations, interviews, and document data have limitations, multiple forms of data sources, drawing on all possibilities were employed with the primary intent of developing themes and patterns from the data. My findings are presented as one case with two distinct levels of portfolios.

Background and Need for Study

Since the 1980s, the field of education has undergone unprecedented change. At the national level, *A Nation at Risk* (1983) issued by the U. S. Department of Education's National Commission of Excellence in Education examined the quality of education in the United States. The recommendations made to schools and colleges were to adopt more rigorous and measurable standards, as well as develop higher expectations for student academic performance, which led to an era of standards-based educational reform. The National Endowment for the Arts published a congressionally mandated report *Toward Civilization: A Report on Arts Education* (1988) of the status of arts education in the US to show the present state of arts education and suggested avenues for its improvement. One of the recommendations made was to provide a basic sequential arts education for all students in grades K to 12 in the US. The findings indicated that there was a gap between commitment and resources for arts education and the actual practice of arts education in schools. The arts were not, in general, being taught sequentially and students of the arts were not being evaluated. *Toward Civilization: A Report on Arts Education* (1988) proclaimed that "Nowhere in the country is there any systematic, comprehensive, and formal assessment of student achievement in the arts; nor is the effectiveness of specific arts programs in local school districts generally measured" (p. 26). The report indicated the need for assessment and evaluation in the arts,

> The need to measure individual progress toward curricular goals and objectives and to evaluate the relative effectiveness of arts education programs is as essential as for other subjects. Without testing and evaluation, there is no way to measure individual and program progress, program objectives will lack specificity, and arts courses will continue to be considered extra-curricular and unimportant. (p. 27)

Following the release of *A Nation at Risk, Toward Civilization: A Report on Arts Education* (1988) made similar recommendations for educational improvement, to adopt more rigorous and measurable standards, as well as set higher expectations for academic performance, which has led to an era of standards-based educational reform. At that time, the arts were not core subjects, arts standards did not exist, and the arts were not required for college admission or for an elementary teaching credential in California (Powell, 2002).

In the 1990s, several state and federal education polices focused on standards-based education reforms to improve the academic achievement of all students in public schools. With the passage of Goals 2000: Educate America Act (P L 103-227, 1994), the arts were written into federal law. Goals 2000 was the first major piece of federal legislation officially to designate the arts as a core subject, as important to education as English, mathematics, history, geography, science, and foreign language. The legislation, signed by President Clinton, led to the development of National Standards for Arts Education (1994) that outlines basic arts-learning outcomes essential to the comprehensive education of every K to 12 student in the US. The National Visual Arts Standards provide a framework for all art educators to design art curricula and instruction in elementary, middle or junior, and high schools. The National Visual Arts Standards (1994), which are specific to each discipline in Dance, Music, Theatre, and Visual Arts, established a vision of what every K to12 student should know and be able to do in the arts as a framework for arts-education programs in schools to ensure that all students meet grade-level standards:

> Understand and apply visual arts media, techniques, and processes.
> Use knowledge of visual arts structures and functions.

Choose and evaluate a range of subject matter, symbols, and ideas.
Understand the visual arts in relation to history and culture.
Reflect upon and assess the characteristics and merit of their work.
Make connections between visual arts and other disciplines.
        (The National Visual Arts Standards, 1994, emphasis added)

Since the 1990s, education has changed dramatically, challenging educators to improve instruction in the nation's schools and move toward a standards-based education. The passage of NCLB led to an era of educational reform based on the premise that every child can learn and achieve high standards. Signed into law by President George W. Bush in January 2002, NCLB set ambitious goals to improve the academic performance of all students by 2014. States and school districts across the country have reexamined their standards, set targets for improvement, and introduced rigorous testing. At the federal level, NCLB neither mandate arts assessment nor include the arts in the federally mandated accountability systems.

Theoretical Rationale

Artists have long used portfolios to showcase their best work and demonstrate their artistic growth. The theoretical framework for this study is based upon several arts-based studies (Blaikie et al., 2004; Dorn, 2003; Dorn et al., 2004; Dorn & Sabol, 2006; Pereira de Eca, 2005) that endorse portfolio development as an effective assessment method. Barrett (2007) affirmed that "portfolios support reflection that can help students understand their own learning and provide a richer picture of student work to document growth over time" (p. 436). One of the benefits of a portfolio is it has the potential to provide a more complete and richer display of student performance that can be difficult to measure on standardized tests. If properly structured, portfolio development is an effective instructional strategy that promotes students' reflective-thinking skills and

develops students' critical-thinking abilities. Looking back at an entire body of artwork at the end of a semester can be very rewarding for the student and the teacher because it helps them to evaluate how much learning and growth have occurred over an extended period of time. One of the benefits of students' self-reflection is that it can demonstrate the ways that the students synthesize information, think critically about their performance, identify acceptable and unacceptable elements of their performance, and suggest changes for the future. In this study, one of the main objectives was to assess the portfolio as means of developing students' critical-thinking abilities.

Bloom (1956) developed the "Taxonomy of Educational Objectives" as a classification of levels of intellectual behavior called higher-order thinking skills. The significance of Bloom's work was it was the first attempt to classify learning behaviors and provided concrete measures for identifying different levels of learning. Bloom and his colleagues established a standard vocabulary and a set of carefully defined categories and subcategories into which any educational objective and, therefore, any test item could be classified. The results of this work became what is known today in the field of education as Bloom's Taxonomy. This hierarchy of learning behaviors was categorized into three overlapping domains: cognitive (knowledge), psychomotor (skills), and affective (attitude). The cognitive domain involves knowledge and the development of intellectual skills. Cognitive behaviors are characterized by observable and unobservable skills such as comprehending information, organizing, ideas, and evaluating information.

Figure 1 illustrates the six levels within the cognitive domain from the simple recall or recognition of facts, as the lowest level of knowledge, comprehension, and application to increasingly more complex levels such as analysis, synthesis, and

evaluation that Bloom identified. An important premise of Bloom's Taxonomy is that each category or level must be mastered before progressing to the next category or level. For over 50 years, Bloom's Taxonomy has provided a basis for test design and curriculum development not only in the US but also throughout the world.
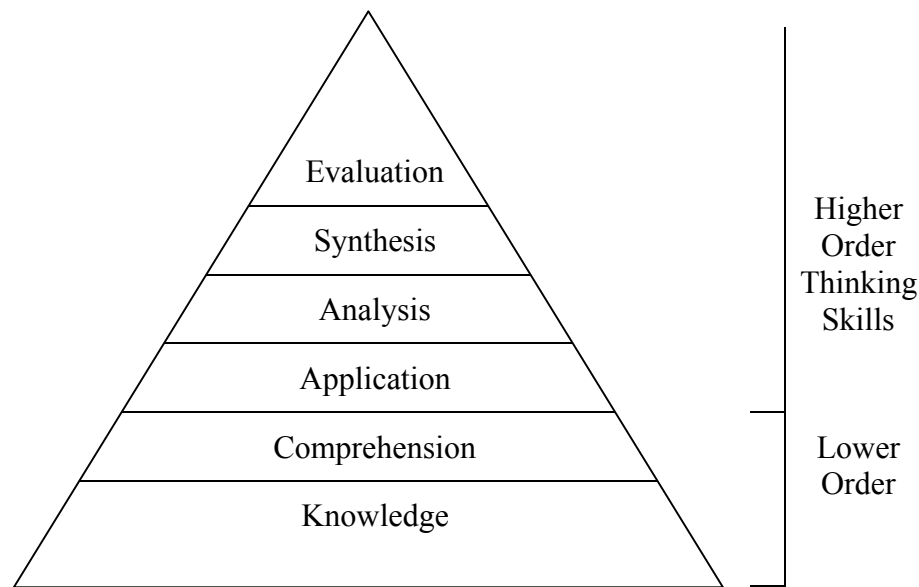
Figure 1. Bloom's Taxonomy of Educational Objectives

Since the development of Bloom's taxonomy in the 1950s, the taxonomy has been reinterpreted in different ways. Anderson et al. (2001) extended the original Bloom's Taxonomy by combining both the cognitive process and knowledge dimensions for learning, teaching, and assessing. Anderson et al.'s (2001) revision of Bloom's taxonomy of educational objectives (RBT) provides a hierarchy that orders cognitive process from less complex cognitive process categories *Remember, Understand, Apply*, to more complex cognitive processes *Analyze, Evaluate,* and *Create*, as illustrated in Figure 2.

Anderson et al. encouraged teachers at all grade levels to become aware of the cognitive process categories and "of knowledge that students may be expected to acquire or construct" (p. 236). The RBT was designed to be of use to teachers at all grade levels in planning curriculum, instruction, and assessment and in the alignment of these three. The RBT emphasis differs from Bloom's Taxonomy that was aimed at college examinations in higher education and focused on test items for each of the six categories.

Analyze	Evaluate	Create
Apply		
Understand		
Remember		
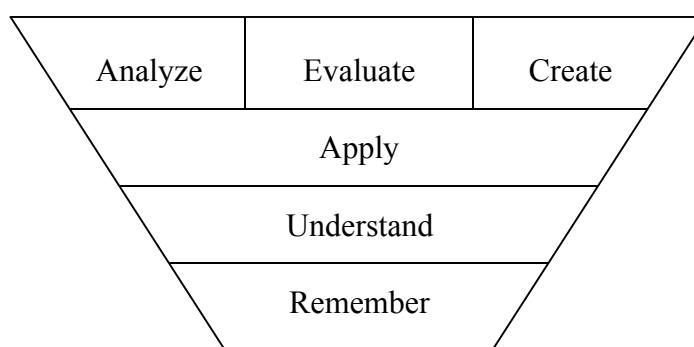
Figure 2. A Revision of Bloom's Taxonomy of Educational Objectives

The Taxonomy Table developed by Anderson et al. (2001) provided the theoretical basis for this study. For the purpose of this study, The Taxonomy Table served as a useful structure to build an instrument to identify and categorize the level of students' self- reflection, critical-thinking, reflective writings about their artwork exhibited in the portfolio. "The Criteria for Ascertaining Level of Student Reflections Upon Their Artwork and Critical-Thinking Skills Exhibited in Portfolios" (Appendix A) and "The Coding Sheets for Level of Student Reflections" (Appendix B) helped to establish that the measurements are valid and reliable. Without such tools, it is difficult to determine objectively how portfolios demonstrate students' critical-thinking abilities.

The Feldman (1993) Method is a widely used method of art criticism employed by artists, art students, art instructors, art collectors, art critics, art journalists, and artists throughout the world to form interpretations, explain critical understandings, and defend critical judgments. Similarly, Ragans' 4 steps of art criticism process is an instructional method that encourages students to form their own opinions about works of art and to develop critical-thinking abilities described in the textbook *ArtTalk* (Ragans, 2000, p. 26). In the first step of art criticism, description, students list all the things that they can see in the work: (a) the size of the work, (b) the medium used, (c) the subject, object, and the details, and (d) the elements of art. In the second step of art criticism, analysis, students discover how the elements of art (line, shape, form, space, color, value, and texture) and the principles of design (rhythm, movement, balance, proportion, variety, emphasis, harmony, and unity) are used to create the content of the art that is known as the subject, theme, or the message. During step three, interpretation, students explain the expressive qualities in the work or the feelings, moods, and ideas communicated to the viewer by of the work of art based on the visual facts. The final step, judgment, consists of determining the degree of artistic merit in the work of art. Students judge whether or not the work is successful. Judgments require support based on the visual facts.

Table 1 illustrates how Ragans' (2000) art-criticism process aligns with the 6 levels of reflection drawn from the RBT Anderson et al. (2001) that are as follows: *Remember, Understand, Apply, Analyze, Evaluate,* and *Create*. In addition, Table 1 demonstrates how Ragans' process and Anderson et al.'s levels align with the five strands of The California Content Standards for the Visual Arts (VA Standards) and with the six National Visual Arts Standards (National VA Standards). The first step of art criticism,

description, corresponds with the first level of the cognitive process dimension of the RBT developed by Anderson et al., that is, *Remember*, recognizing, or recalling the subject matter and elements of art observed in the work. The first step of art criticism is aligned with The California Content Standards for the Visual Arts (VA Standards), Strand 1.0 Artistic Perception- Students perceive and respond to works of art using the vocabulary of the visual arts to express their observations. The first step of art criticism is aligned with the National VA Standards, 2.0 Using knowledge of structures and functions.

Table 1 illustrates how the second step of art criticism, analysis, corresponds with level four of The Taxonomy Table *Analyze*, differentiating, organizing, or attributing the organization of the elements of art and the principles of design observed in the work. The second step of art criticism is aligned with the VA Standards, Strand 1.0 Artistic Perception, 3.0 Aesthetic Valuing-Responding to, analyzing, and making judgments about works in the visual arts and with the National VA Standards, 2.0 Using knowledge of structures and functions. The third step of art criticism, interpretation, corresponds with the level four the RBT *Analyze* as indicated in Table 1. The third step of art criticism is also aligned with the VA Standards, 1.0 Artistic Perception, 4.0 Aesthetic Valuing-Students analyze, assess, and derive meaning from works of art, including their own, according to the elements of art, the principals of design, and aesthetic qualities, and 5.0 Connections, relationships, applications-Students apply what they learned in the visual arts across subject areas. The third step also is aligned with the National VA Standards, 3.0 Choosing and evaluating a range of subject matter, symbols, and ideas, 4.0

Table 1

The 4 Steps of Art Criticism, The Categories of the Cognitive Process Dimension,
The California Content Standards for Visual Arts,
and The National Visual Arts Standards

4-Step Art Criticism Process Ragans (2000)	The Categories of the Cognitive Process Dimension Anderson et al. (2001)	California Content Standards for Visual Arts (2004) **The National Visual Arts Standards (1994)**
1.What do I see? (Description)	1. Remember Retrieve relevant knowledge from long-term memory.	1.0 Artistic Perception Processing, analyzing, and responding to sensory information through the language and skills unique to the visual arts
	2. Understand Construct meaning from instructional messages, including oral, written, and graphic communication.	**2.0 Using knowledge of structures and functions**
2. How is the work organized? (Analysis)	4. Analyze Break material into constituent parts and determine how parts relate to one another and to an overall structure or purpose.	2.0 Artistic Perception Processing, analyzing, and responding to sensory information through the language and skills unique to the visual arts 3.0 Aesthetic Valuing Responding to, analyzing, and making judgments about works in the visual arts **3.0 Choosing and evaluating a range of subject matter, symbols, and ideas 4.0 Understanding the visual arts in relation to history and cultures 5.0 Reflecting upon and assessing the characteristics and merits of their work and the work of others 6.0 Making connections between visual arts and other disciplines**

Table 1 Continues

Table 1 Continued

4 Step Art Criticism Process Ragans (2000)	The Categories of the Cognitive Process Dimension Anderson (2001)	California Content Standards for Visual Arts (2004) **The National Visual Arts Standards (1994)**
3. What is the artist trying to communicate? (Interpretation)	2. Understand Construct meaning from instructional messages, including oral, written and graphic communication. 4. Analyze Break material into constituent parts and determine how parts relate to one another and to an overall structure or purpose.	2.0 Artistic Perception Processing, analyzing, and responding to sensory information through the language and skills unique to the visual arts 3.0 Aesthetic Valuing Responding to, analyzing, and making judgments about works in the visual arts 5.0 Connections, relationships, applications **2.0 Using knowledge of structures and functions** **3.0 Choosing and evaluating a range of subject matter, symbols, and ideas** **4.0 Understanding the visual arts in relation to history and cultures** **5.0 Reflecting upon and assessing the characteristics and merits of their work and the work of others** **6.0 Making connections between visual arts and other disciplines**
4. Is this a successful work of art? (Judgment)	5. Evaluate Make judgments based on criteria and standards.	1.0 Artistic Perception Processing, analyzing, and responding to sensory information through the language and skills unique to the visual arts 4.0 Aesthetic Valuing Responding to, analyzing, and making judgments about works in the visual arts **2.0 Using knowledge of structures and functions** **3.0 Choosing and evaluating a range of subject matter, symbols, and ideas** **5.0 Reflecting upon and assessing the characteristics and merits of their work and the work of others**

Understanding the visual arts in relation to history and cultures, 5.0 Reflecting upon and assessing the characteristics and merits of their work and the work of others, and 6.0 Making connections between visual arts and other disciplines.

The final step, judgment, corresponds with level five of The Taxonomy Table *Evaluate*; students evaluate the work's artistic merit as indicated in Table 1. The final step is aligned with the VA Standards, Aesthetic Valuing-Responding to, analyzing, and making judgments about works in the visual arts and is aligned with the National VA Standards, 2.0 Using knowledge of structures and functions, 4.0 Understanding the visual arts in relation to history and cultures, and 5.0 Reflecting upon and assessing the characteristics and merits of their work and the work of others. In addition, a portfolio may contain notes, sketches, rough drafts, preliminary drawings, as well as finished works that include drawings, paintings, sculptures, or a series of works that may provide evidence of The Taxonomy Table level 4. *Apply* (executing, implementing) and 6. *Create* (generating, planning, producing) that aligns with the VA Standards, 2.0 Creative Expression-students apply artistic process and skills, using a variety of media to communicate meaning and intent in original works of art and the National VA Standards, 1.0 Understanding and applying media, techniques, and processes, 2.0 Using knowledge of structures and functions, 3.0 Choosing and evaluating a range of subject matter, symbols, and ideas. Students who develop well-organized portfolios that include self-reflection and critical analysis of his or her artwork may exhibit simple to higher order thinking skills. As students expand their abilities in the visual arts, they may also develop his or her ability to think critically across the curriculum.

Research Questions

There are two research questions for this dissertation, and they are as follows:

1. How do visual-arts teachers encourage students to reflect upon and assess the characteristics and merit of their artwork exhibited in portfolios in secondary visual-arts courses?

2. To what extent do the portfolios contain evidence of students' self-reflection and critical-thinking abilities?

Significance of the Research

Gaining an understanding from the secondary-level visual-arts teachers in Northern California who have facilitated student portfolios in relationship to how they have developed students' reflective-thinking and critical-thinking abilities through portfolios may provide a contribution to the literature base in visual-arts education. The results of this study contributed to the greater understanding of students' reflective-thinking and critical-thinking abilities through portfolios in visual-arts courses at the secondary-level through the exploration of visual-arts teachers' perspectives and students approaches to written reflection upon their artwork. The results of this study provided an understanding of instructional methods visual-arts teachers' utilize to develop portfolios of student artwork and how portfolios contribute to students' critical-thinking skills. If well designed, portfolios can help students to develop self-reflective skills and critical-thinking abilities. Through the use of portfolios, students can demonstrate what they have learned in visual-arts courses, think critically about their artwork, and suggest changes for the future. This work is significant because it provided the first look at the development

of students' self-reflective skills critical-thinking abilities exhibited portfolios of student artwork at the secondary-level in California.

The results of this study may lead to the development of explicit portfolio criteria that encourage students' written reflections upon the merits of their artwork and to the development of portfolio assessment tools. It is important to measure individual student progress and to evaluate the effectiveness of the visual-arts programs in grades 9 through 12 in order to provide students, teachers, visual-arts departments, and school districts with opportunities for acknowledging strengths, recognizing areas for improvement, setting goals, and achieving milestones.

Significance of the Problem

This research provided an exploration of visual-arts teachers' approaches to developing students' self-reflection and critical-thinking skills exhibited in portfolios of student artwork. This work is significant because it was the first look at written reflections upon the characteristics and merit of artwork exhibited in student portfolios at the secondary level. The findings of this study may contribute to the greater understanding of portfolios through the examination of student portfolios, written reflections, and of visual-arts teachers' strategies to enhance students' self-reflection skills and critical-thinking abilities in visual-arts courses at the secondary level. The findings should provide a valuable resource to visual-arts teachers who are interested in developing students' critical-thinking skills and implementing portfolios at the secondary level.

It is important for secondary visual-arts teachers to encourage their students to create original works of art, to develop portfolios to preserve their artwork, and to reflect

upon their evolving artwork in a traditional (actual pieces of student work), digital (*e*-Portfolio), or webfolio (posted on the World Wide Web) format. In developing portfolios, students develop skills in critiquing their own work and gain a sense of accomplishment. Portfolios provide opportunities for students to showcase work that represents their own interests and abilities rather than approximations provided by standardized test scores. Secondary visual-arts students interested in pursuing admission to college, consideration for scholarship, consideration for art-exhibition, or art-employment opportunities are often required to submit examples of their most recent work in a portfolio for assessment purposes. In the increasingly digital world of the 21st century, *e*-Portfolios are becoming an acceptable format for art-school admissions and webfolios are becoming an acceptable format for employment opportunities.

Patton (1980) proposed "a statewide or national project may spin off an innovative local program that is of special interest to decision makers, thereby indicating the appropriateness of conducing a case study of that particular program" (p. 64). The results of this study may lay the foundation for understanding how secondary visual-arts teachers promote students' self-reflection and critical-thinking abilities through portfolios and to the development of explicit portfolio criteria and portfolio assessment tools that are aligned with The National Visual Arts Standard (1994) that encourages students have to reflect upon and assess the characteristics and merit of their work and to gauge the degree to which a student, school, or district has met the VA Standards in grades 9 through 12. By developing explicit portfolio criteria and assessment tools aligned to the VA Standards in grades 9 through 12, students, teachers, schools, and districts can provide evidence of art-content knowledge and creative skills.

Definition of Terms

The following concepts are defined relative to this study.

Assessment: The collection, analysis, interpretation, and application of information about student performance or program effectiveness in order to make educational decisions. Examining multiple measure of student achievement in the arts (Edward, 1999).

Authentic assessment: A system of instructional and assessment practices designed to evaluate a student's ability to use diverse academic skills to complete real-life tasks. These methods include, but are not limited to, student portfolios, oral reports, and reflective journals (Baron & Boschee, 1995).

Critical Thinking: In this study, a hierarchy that orders cognitive processes from the less complex cognitive process categories of *Remember*, *Understand*, and *Apply* to more complex cognitive processes of *Analyze*, *Evaluate*, and *Create* (Anderson et al., 2001).

Electronic or digital portfolio: (*e*-Portfolio) An electronic portfolio uses electronic technologies as the container, allowing learners of all ages to collect and organize portfolio artifacts in many media types (audio, video, graphics, text) and using hypertext links to organize the material, connecting evidence to appropriate outcomes, goals, or standards (Barrett, 2005).

Portfolio: A systematic, organized collection of a student's work (California Department of Education, 2000).

Portfolio Assessment: An analysis of a collection of student work used to demonstrate student achievement in a content area; student progress is determined by reviewing the collected works in light of previously established criteria (Edward, 1999).

Webfolio: A webfolio is an integrated collection of Web-based multimedia documents that could include curricular standards, course assignments, student artifacts in response to assignments, and reviewer feedback of students' work that resides on the World Wide Web (Love et al., 2004).

Forecast of the Study

To give readers a sense of organization, the study starts with an introductory chapter (present chapter) presenting the background and needs associated with the field of arts education. In order to develop a framework for the study, Chapter II contains a review of relevant literature on the visual- and performing-arts in California, portfolios for assessment and evaluation in the US, Canada, England, the Netherlands, and Portugal, and the effect of visual-arts instruction on self-reflection skills and critical-thinking abilities. Chapter III focuses on the pilot study and the methods that were used to recruit the participants, the research design, the participants, the setting and demographic data from each high school, the data collection procedures, the data analysis, and the researcher's role are described. Chapter IV contains the findings from the visual-arts teacher interviews, the exploration of instructional materials, and the investigation of portfolios of student artwork with a presentation of the seven major themes found. The study summary, limitations, discussion, implications for educational practice, recommendations for future research, and conclusions are presented in Chapter V.

CHAPTER II

REVIEW OF THE LITERATURE

The Visual- and Performing-Arts Framework for California public schools, adopted by the California State Board of Education in 2004, set clear expectations for teachers to provide students with a variety of opportunities to meet the content standards and help students to prepare portfolios of their work. Consequently, there has been a growing interest in the use of portfolios to measure students' levels of proficiency in the visual arts and to ensure that all students meet grade-level standards. The problem is that explicit portfolio criteria, performance assessment tools, and procedures to gauge the degree to which a student has met the California Content Standards for the Visual Arts (VA Standards) and the degree to which a school or school district has met the VA Standards do not exist. Without explicit criteria and procedures for assessment and accountably, it is difficult to assess whether a visual-arts curriculum is aligned and focused on ensuring that all students meet the VA Standards. The purpose of this study was to obtain an understanding of the perceptions of secondary-school visual-arts teachers in Northern California who have facilitated portfolios of student artwork in grades 9 to 12 and the exploration of students written reflections upon the evolving quality of their artwork exhibited in their portfolios.

In the following review of the literature, there is evidence to support policies enacted at both the State of California and federal levels that demonstrate a commitment to arts education. In 2001, the California State Board of Education adopted The California Content Standards for the Visual and Performing Arts (VPA Standards). In 2003, students seeking admission to the University of California (UC) and the California

State University (CSU) systems are required to take one full year of visual- and performing-arts coursework during high school. Despite the Visual- and Performing-Arts Framework for California Public Schools (2004) expectations for instruction in the arts, information is lacking in regard to standards-based instruction and assessment tools to measure students' mastery of the content standards and skills aligned with the VPA Standards. To date, empirical studies have investigated neither visual-arts teachers who have facilitated portfolios of student artwork in grades 9 through 12 nor students' written reflections upon their artwork exhibited in portfolios. The purpose of this study was to obtain an understanding of the perceptions of secondary-school visual-arts teachers in Northern California who have facilitated portfolios of student artwork as an instructional strategy. An additional purpose of this study was to examine students written reflections upon the characteristics and merits of their artwork exhibited in portfolios and to determine the stage of portfolio maturation.

Components of this literature review provide insights into visual-arts education with an emphasis on portfolio development as a performance assessment tool to measure students content knowledge and skills (Blakie, Schunau, & Steers, 2004; Dorn, 2003; Dorn, Madeja, & Sabol, 2004; Dorn & Sabol, 2006; Pereira de Eca, 2005) and portfolio development as an instructional strategy that promotes students' reflective thinking (Barrett, 2007; Brown, McCrink, & Maybee, 2003; Juneiwicz, 2003) and critical-thinking abilities. In the review of the literature, there is evidence to support a growing interest in shifting away from traditional summative testing practices to more comprehensive ways to assess students' knowledge and skills. Very few empirical studies (Lampert, 2005,

Shin, 2002) have been conducted on the effects of visual-arts instruction on the critical-thinking abilities of either high-school students or college students.

This literature review is divided into six sections. Section one introduces the state of the visual and performing arts in California. Section two examines portfolios as an authentic assessment tool that includes the benefits and challenges as an assessment method. Section three introduces portfolios for assessment and evaluation in the visual arts in the US. Section four explores portfolios in the visual arts in Canada, England, the Netherlands, and Portugal. Section five presents the impact of portfolios as an instructional strategy that develops students' self-reflection skills and critical-thinking abilities. Finally, section six presents existing research (Lampert, 2005; Shin, 2002) as to how visual-arts curriculum and instruction may contribute to the development of students' self-reflection skills and critical-thinking abilities.

State of the Visual and Performing Arts in California

A preliminary review of literature found little information about students' access to and performance in the arts in California. In the following review of the literature, there is evidence to support the implementation of the California Content Standards for the Visual Arts in public schools. The "Arts Work Survey" (California Department of Education (CDE), 2001) and "An Unfinished Canvas, Arts-education In California: Taking Stock of Policies and Practice" (Woodworth et al., 2007) established basic information about the degree to which the visual- and performing-arts programs were being implemented in California public schools. Both studies reported similar disparities in all four subject areas -- dance, music, theater, and the visual arts-- across all of California's public schools.

The "Arts Work Survey" of California public schools (CDE, 2001) was the first study on the status of arts-education programs throughout California. The findings addressed important issues for considering what factors may or may not be affecting the implementation of the VPA Standards by a small group of public-school teachers. It is important to note that at the time of the study (CDE, 1998) the VPA Standards had not yet been adopted by the California State Board of Education.

The "Arts Work Survey" (CDE, 2001) utilized a qualitative research method. The instrument, a one-page questionnaire, was designed to elicit open-ended responses that allowed respondents to focus on areas that were of interest to them and was sent to all public schools and district offices in January of 1998. Representative members of a school's faculty including principals, assistant principals, and teachers in grades Kindergarten to 12 (K to12) completed and returned the questionnaire. This small sample group (n=223) represented approximately 2.5% of public schools in California.

The responses indicated that there was a wide range of expertise and experience among those who provide arts education in California public schools in grades K to12. Forty percent of schools responding to the questionnaire reported using a combination of teachers to teach the arts (dance, music, theater, and visual arts). Thirty-nine percent of the schools reported using teachers who have credentials in music and the visual arts. Other schools reported using professional artists, classroom teachers, arts specialists, or community volunteers. The responses indicated diversity in the arts disciplines being taught in the schools surveyed. Although some schools provided a comprehensive program in all four subject areas -- dance, music, theater, and the visual arts-- the frequency of arts instruction varied widely by subject and by grade level. For example,

one elementary school reported that music education was provided once a week to third and fourth graders but not to first graders.

The second most frequently cited constraint on implementing arts programs was the time or scheduling limitations; 58% of the survey respondents mentioned insufficient instructional minutes allotted to the arts. A commonly voiced concern was the constraints the teachers believed to meet core academic content standards, particularly the subjects included in the mandated testing programs in California, such as nummeracy and literacy, before developing or implementing other content areas such as the arts.

The survey identified schools with "good" and "excellent" arts-education programs that possessed three factors in order to create a comprehensive, high-quality, sequential arts program for all students: administrative support, community involvement, and professional development. The "good" and "excellent" arts-education program criteria included a comprehensive program in all four subject areas-- dance, music, theater, and the visual arts-- and implementation of the VPA Framework and VPA Standards.

The results of the CDE (2001) study indicated that most K to 12 public schools failed to meet the level established by California policy makers in 2001 for teaching the arts in all four subject areas: dance, music, theater, and the visual arts. The findings identified several areas in which further research and attention was needed that include creating effective strategies for implementing comprehensive arts-education programs in all California public schools, providing effective professional development, and working toward legislation that supports the implementation of arts programs in all California public schools. The recommendations made prioritized the need to develop

comprehensive arts programs in all California public schools that are aligned with the VPA Framework and VPA Standards and taught by credentialed teachers in all four subject areas: dance, music, theater, and the visual arts.

There are several limitations with CDE (2001) study. First, the sampling represented only a small fraction of public-school arts programs in California, approximately 2.5% of all public schools. Approximately 400 survey questionnaires were returned, and 223 were analyzed, representing a small sample of the public-school arts programs. For this reason, the study results may have had a different outcome had there been a larger sample. Second, the survey information was solicited, collected, analyzed, and published under the auspices of the CDE; this factor alone may have affected the return rates of respondents. Third, no data were collected on the extent that students met The VPA Standards in grades K to12.

Similar to the CDE (2001) study, this study focused on a small group of visual-arts teachers in Northern California public schools who represent a fraction of the visual-arts programs at the secondary level. The interview questions were developed to elicit open-ended responses and allowed the visual-arts teachers to focus on student's self-reflection upon artwork in his or her portfolio. The findings of this study may reveal a new set of factors that may be affecting the implementation of the VPA Framework and the VPA Standards by a small group of visual-arts teachers in Northern California public-schools grades 9 to 12.

In a later study, Woodworth et al. (2007) examined students' access to arts education in California public schools, how access has changed over time, and the extent to which access varies by demographics. Woodworth et al. disclosed that the majority of

California's K to 12 public schools fail to meet the rigorous VPA Standards that outline what every student should know at every grade level in all four disciplines: visual arts, music, dance, and theater. Several key findings indicate the status of arts education in K to 12 California varies widely, 29% of California's public schools do not offer a standards-based course of study in any of the four arts disciplines: visual arts, music, dance, and theater. Of California's public high schools, 72% fail to offer standards-based courses of study in all four disciplines. The implementation of the VPA Framework, the VPA Standards, alignment, assessment, and accountability practices are uneven in the four arts disciplines and often not present at all.

Woodworth et al.'s (2007) comprehensive study of arts education in California public schools was a multipronged and multistepped approach to survey administration; a combination of methods were employed: school surveys, case students, and secondary data analyses. The sample schools represented diverse characteristics, including geographic region in the state, district, or school poverty level, academic performance, and percentage of students identified as English learners. The statewide school survey response rate was 62.4% (1,123 respondents were school principals or their designees). Researchers used semistructured interview protocols to interview a total of 193 people.

Responses from the survey reveal that many schools were focused on improving test scores and that the bulk of instructional time was allocated to California State tested subjects, such as nummeracy and literacy, which has had an adverse effect on the arts-education programs. Many elementary-school teachers often lacked the expertise to teach the arts, and there is substantial variation in teachers' familiarity with the VPA Standards and use of the VPA Framework. The results of Woodworth et al. study suggested that arts

education in California's public schools is in danger, as many schools are struggling to incorporate the arts in the curriculum. Woodworth et al. pointed out great disparities in access to the arts, as well as disparities in offerings by discipline. Woodworth et al.'s study delivered a powerful message, that is, in order to ensure that all students have equal access to a quality arts education program, sufficient instructional time for arts education and professional development opportunities must be provided in order to improve the quality of arts education programs in all of California's public schools.

One notable limitation of the Woodworth et al. (2007) study was that no data were collected on the extent that students meet the VPA Standards in grades K to12. In addition, no data were collected on the extent to which the VPA Framework and the VPA Standards had been implemented in California's public schools in grades K to12.

The high schools in this study represented diverse characteristics, including geographic region in the state, academic performance, and percentage of students identified as English learners. Similar to the Woodworth et al. (2007) study, the findings of this study indicated a variation in visual-arts teachers' implementation of the VPA Standards and the VPA Framework.

The CDE (2001) and Woodworth et al. (2007) studies concurred similar disparities in the visual- and performing-arts programs in California's public schools. Both studies established uneven implementation of the overarching arts curriculum encompassed by the Visual- and Performing-Arts Framework for California Public Schools. Several themes emerged from these survey data that are impacting the implementation of comprehensive and sequential visual- and performing-arts programs. First, a substantial majority of elementary teachers' responses indicate that they allocate

more instructional time on nummeracy and literacy because these subjects are included on the California state-mandated tests at the expense of instructional time in the visual and performing arts. This finding highlights the fact that state-mandated testing programs can have unintended negative effects on the arts. In order to ensure that all students have equal access to a quality arts education, there must be sufficient instructional time allotted to accommodate a curriculum that includes the visual and performing arts. Second, not all of California's schools offer a standards-based course of study in all four arts disciplines: dance, music, theater, and the visual arts. Visual- and performing-arts instruction in California public schools varies widely by subject and by grade level. This finding calls for all students to have equal access to a comprehensive and sequential visual- and performing-arts program in all four arts disciplines. Third, many teachers lack expertise to teach the arts in all four arts disciplines. Not all visual- and performing-arts teachers in California have credentials in music or the visual arts. Some schools indicate using professional artists, arts specialists, and volunteers to teach the arts. This finding signifies the need for visual- and performing-arts programs that are taught by credentialed visual- and performing-arts teachers.

To conclude the section of this literature review on the state of the arts in California, the CDE (2001) and Woodworth et al. (2007) studies established basic information about the degree to which the visual- and performing-arts programs were being implemented in California public schools, both important to this study. The CDE and Woodworth et al. studies concurred that numerous State and federal education polices have focused on the implementation of standards-based reforms to improve the academic achievement of all students in grades K to 12. The visual and performing arts

are part of the required course of studies in grades K to 12. Assessment in the arts are not mandated or included in any federal or California public-school accountability systems that pose difficulties in order to implement and evaluate arts programs in schools and to insure that the standards, assessment, and curriculum are aligned and that all students meet grade-level standards. These findings suggest that without effective tools and procedures for assessment and accountably, it is difficult to determine if the arts curriculum aligned and focused on ensuring that all students at each grade level are provided with an overarching arts curriculum encompassed by the Visual- and Performing-Arts Framework for California Public Schools.

<div align="center">Portfolios as Assessment Tools</div>

The literature review related to assessment in arts education in the US by the National Endowment for the Arts, in *Toward Civilization: A Report on Arts Education* (1988) pointed out that

> There are three unique problems involved in arts testing. The first is the lack of standardized curricula, texts, and resource materials against which to test: the second is that the arts do not readily lend themselves to easily scored testing formats; and the third is the dispute among arts educators about whether testing in arts is a good idea. (p. 26)

In the following review of the literature, there is evidence to support a growing interest in shifting away from standardized testing practices to authentic assessment methods. The empirical research is limited on the development of student portfolios in grades 9 to12. There is more empirical research that focuses on the development portfolios in higher education. Components of this section provide insights into the use portfolios as an assessment tool to measure what students know and are able to do. Portfolios are an essential instructional method to support and enhance student learning

and assessment in the visual arts. There has been a renewed interest in the use of portfolios to measure students' levels of proficiency in the visual arts. As a result, a myriad of portfolio models have emerged in the literature. The underlying concept is that the student should produce evidence of accomplishment of curriculum goals to demonstrate achievement. Individual student reflection on the process of creating, developing, and analyzing the evolving quality of their work is one of the key benefits associated with portfolios. By directly linking portfolios of student artwork to the visual-arts content standards, students can provide evidence of art-content knowledge, creative skills, and critical-thinking abilities.

In a review of fine-arts assessments, Sabol (1994) reported that 12 state departments of education had developed state-level visual-arts achievement tests and that 9 additional states were at various stages of test development. Of the states with the visual-arts achievement tests, 10 reported having tests that were given most commonly at the 5th-, 8th- and 11th-grade levels to measure students' art knowledge and skills. As student populations increasingly become diverse, teachers, schools, districts, and states are challenged to select or develop assessments to measure student performance on VA standards and assess student's knowledge regardless of student's learning differences. It is important for secondary-school visual-arts teachers to encourage their students to create original works of art, to develop portfolios to preserve their artwork, and to provide opportunities for students to reflect upon and assess their work. In developing portfolios, Banta (2003) suggested that students participate in the evaluation process, select materials to include as evidence of specific learning, and develop reflective thinking skills. Secondary visual-arts students interested in pursuing admission to college,

consideration for scholarship, or consideration for art-exhibition or art-employment opportunities are often required to submit examples of their most recent work in a portfolio for assessment purposes.

There has been a renewed interest in the use of portfolios to measure students' levels of proficiency in the visual arts (Blakie, Schunau, & Steers, 2004; Dorn, 2003, Dorn et al., 2004; Dorn & Sabol, 2006; Pereira de Eca, 2005). The underlying concept is that the student should produce evidence of accomplishment of curriculum goals to demonstrate achievement. The portfolio's communication potential is enhanced when students participate in selecting content, when the selection of material to include follows predetermined guidelines, when the criteria are available before judging the merit of the work collected, and when students regularly reflect on the evolving quality of their work. Portfolios are an essential instructional method to support and enhance student learning and assessment in the visual arts at the secondary level.

Although there is no standard format for a portfolio, a portfolio typically includes many forms of information that may exhibit the student's knowledge, skills, and interests. Additionally, an important component of a portfolio is a combination of a student's refection on the individual pieces of work, as well as an overall refection on the story the portfolio tells (Barrett, 2006). When used in schools, portfolios have the potential to make it easier for students to understand their own learning and provide teachers and parents with a richer picture of what students know and are able to do.

Portfolio assessment provides several benefits that traditional testing measures do not provide. Creating a portfolio assessment system takes time and effort. Banta (2003) stipulated that the faculty must decide what purposes the portfolio will serve, what kind

of information will be included, when the artifacts will be gathered, how the content will

be assessed, where the portfolios will be stored, and who will have access to the

portfolios. Once developed, the portfolio can be used as an assessment tool, whereby the

entries are chosen specifically for the purpose of evaluation and become subject to the

criteria established for the evaluation process (Popham, 1999). Portfolios of student work

display authentic evidence of what students know and can do, the portfolios appear to be

credible sources of information about what faculties are teaching and what students are

learning. Popham (1999) stated that

> Ideally, teachers who adapt portfolio in their classrooms will make the ongoing
> collection and appraisal of students' work a central focus of the instructional
> program rather than a peripheral activity whereby students occasionally gather up
> their work to convince the teacher's supervisor or students' parents that good
> things have been going on in class. (p. 182)

Despite the many challenges that portfolios present, those who use portfolios find

them to determine not only what students are learning but also how they are learning.

Banta (2003) observed that faculty were able to gain a deeper understand of the success

and failure of their teaching strategies and their curricula implementing a portfolio

assessment system.

Portfolios for Assessment and Evaluation in the Visual Arts in the US

The Models for Assessing Art Performance (MAAP) study was conducted to

assess K to 12 students learning through art-teacher assessment of student portfolios

(Dorn, 2003). The participants included 70 K to 12 art teachers and 1,000 students from

11 school districts in 3 states. Due to the lack of art-assessments tests, opportunities for

training in art assessment, and lack of information on authentic means of assessment,

Dorn proposed the research and development of pre-K to 12 art-assessment model that

could be replicated in US schools. One of the major goals of this study was a call for

school administrators and legislators to reconsider a national-testing policy that supports

a single set of predetermined educational standards and assessments in pre-K to 12

schooling. The MAPP project, which emphasized teaching, research, and service, related

to the mission of all three teacher-education programs and to the needs of the school

districts to meet the demands set by national and state Goals 2000: Educate America Act

(U.S. Department of Education, 1994) achievement standards. Most state governments

were committed to testing all elementary and secondary students, although a limited

number of standardized visual-arts tests were available for teacher or school districts to

use. Dorn asserted the use of paper-and-pencil, true-false, and multiple-choice tests and

essay-type responses rarely provide adequate estimates of what students learn in most K

to 12 school art programs where studio-based activities are the primary means of

instruction. Dorn et al. (2004) claimed that

> What the educational reformers would like to see is a single art test that can
> measure what students know and are able to do in all of the nation's art programs.
> Not such tests are available due to the lack of adequate means to quantify
> expressive activity and the unwillingness of all the nation's art teachers to teach art
> in the same way. (p. 351)

The school-art-assessment context raised a number of questions regarding the role

of the teacher in the assessment process, including what kinds of assessments art teachers

use, the teachers' lack of assessment training, and the appropriateness of paper-and-

pencil, true-false, or multiple-choice tests in assessing student progress in art. There are

several alternative approaches, including portfolio assessment, that take into

consideration the connections between school assessment and the school art curriculum.

Dorn (2003) determined that an authentic assessment model that involved arts teachers as

stakeholders in the assessment process was needed and prioritized the need for (a) teacher training and assessment development institutes, (b) applied assessment and technological research in school art classrooms, and (c) dissemination of the results for researcher to the art teaching profession.

Qualitative and quantitative research methods were employed. The researchers observed teachers and students in the schools, developed and used interview instruments, and analyzed measures of performance. The portfolio assessment study sought to test the reliably of the instruments used, the procedures used to train the teachers in the assessment process, and the utility of the instruments in estimating student progress over time.

The research questions considered were whether (a) the portfolio assessment process could systematically quantify student arts performances, (b) there was interrater reliability among the teachers scoring the pre- and posttest portfolios scored as a combined group, and (c) the gains or losses in student portfolio scores were distributed evenly among students in the lower and higher performance categories.

The design of the portfolio assessment study involved the use of repeated measure on the same (K to 12 students) multiple observations. The participants consisted of students from grades pre-K to 12. Teachers in 51 schools in three states volunteered to participate in the portfolio assessment part of the study. Each teacher selected one class and performance assessment measures were applied on two portfolios from each student. The measures included three teacher ratings on each student art portfolio containing four works gathered before and after the teacher training sessions. Each teacher collected four student art works from the same class to form portfolio A-1 (pretest) that was scored

using rubrics on a scale of 1 to 4 (4 being high and 1 being low) by the teacher and two additional teachers blind scoring the same portfolio. These works were again scored along with four new works gathered at the completion of the training by three teachers in the study group (B-1 and B-2).

Dorn (2003) had two major goals. First, to develop a process whereby teachers could learn to assess accurately student's art performance in the context of what different school art programs with different curricula and different student actually do. Second, to develop a teacher in-service education program that focused on enhancing the teacher's own creative work and on using the creative experience to improve the quality of their teaching and subsequently the quality of their own students' work. It was necessary that the 71 art teachers become familiar with the National Standards for Art Education and the various art-teaching standards advocated by some state departments of public-instruction and by the schools charged with the responsibility of assessing the quality of instruction in US schools.

Dorn (2003) established the criteria for scoring student portfolios as a whole, producing a single score based on a 4-point scale. Four scoring rubrics were designed, one for pre-K to 2, 3 to 5, 6 to 8, and 9 to 12, and each specifying four performance levels: excellent, very good, satisfactory, and inadequate. The descriptors at each level reflected age-appropriate cognitive, aesthetic, and technical skills sequentially organized. Like the national standards, the rubrics specified content in (a) understanding and applying media techniques and process and (b) using knowledge of structures and functions. The instruments were modeled after the "A" quality section of the College Board's Advanced Placement (AP) Studio Art program. The adjudication process was

modeled after the AP adjudication process. The teacher participants were introduced to the rubrics through the activity of scoring sample portfolios made up of sample student artworks.

The project required teachers to select one of their classes to be included in the study over a 4- to 8-month period. The teachers were asked to collect four works of art from each student at the beginning of the school year and to collect four works of art from each student either in January or April. The first four works (A-1) of art in the portfolios were adjudicated in the Fall by the students' teacher and by two other project teachers who volunteered to help judge the work. The A-1 scoring results indicated that although teachers who scored their own students' work had a high level of agreement with the independent judges, more often that not they scored their own students work either somewhat higher or lower.

The data from two 4-works portfolios representing nearly 1,000 students in 51 classrooms from 15 school districts in 3 states were analyzed. Dorn (2003) findings support all four of the research claims that the process does support the quantification of expressive behaviors, that there was a high level of interrater reliability among teachers scoring the pretest and posttest portfolios, that the scores were normally distributed, and that gains in means were unevenly distributed among students in both the higher and lower performance categories. These comparisons were reported in two ways: the A-1 initial scoring of the pretest portfolio and B-1 to B-2 assessment comparing the pretest portfolio and the posttest portfolio as one group. Scores on the pretest portfolio scored separately tended to be higher than when they were later mixed and blind scored in the B-1 to B-2 comparisons. To determine if the losses or gains in class mean performance were

statistically significant, the Wilcoxon Signed Ranks Test, a nonparametric test to compare two related samples was used. There results were statistically significant at the .05 level of confidence, with 19 of the 51 schools being positively or negatively significant. The results suggested that 36 of the 51 classrooms improved over time. The greatest gain occurred at the 6- to 8-grade levels, somewhat less at the 1- to 3-grade levels, and much less in the 9- to12- and 4- to 5-grade levels.

The results of the Dorn (2003) student-portfolio-assessment principal study question as to whether the assessment process was itself reliable was confirmed based on the study participants. The participants did not constitute a random sample but rather included nearly 1,000 participants from 51 different schools, from 15 different school districts, each operating in a different contexts with different school populations and differing resources. The comparisons between schools and between students were necessary in order to confirm the effectives of the assessment process. Dorn warned "these goals do not support the goals of authentic assessment, which are not designed to compare teachers and schools with one another, but rather to assess student progress within a given classroom as a guide to improving the quality of instruction" (p. 367).

The major strength of the Dorn (2003) study was the collaborative effort by 70 pre-K to 12 art teachers and 1,000 students in 3 states to address the problem of art assessment in pre-K to 12 schooling. Dorn concluded that teachers with appropriate training have the ability to conduct the assessment of K to 12 student artwork. One limitation of this study was that the developmentally ordered rubrics (one for pre-K to 2, 3 to 5, 6 to 8, and 9 to12) each specifying four performance levels employed in the study were not included for those interested in replicating this project.

Dorn (2003) found from the adjudication of nearly 2,000 portfolios that teachers with appropriate training have the ability to conduct the assessment of K to 12 student artwork and create their own standards for adjudicating artworks subject to the abilities of the teachers, the students, and the schools. The study data further supports that there are viable alternatives to paper-and-pencil tests in art assessment in grades K to 12.

My study had two prongs. First, I developed "The Criteria for Ascertaining Level of Students Reflections Upon Artwork and Critical-Thinking Skills Exhibited in Portfolios" (Appendix A) tool to assess what level students were able to reflect upon their artwork in the portfolio whereby other visual-arts teachers interested could learn to assess accurately students written reflections upon their artwork. Second, two visual-arts teachers volunteered to help judge the work and adjudicated the students' written reflections upon their artwork in the portfolios. Each independent visual-arts judge received individual training in order to conduct the assessment of students written reflections exhibited in portfolios and to assess the level of reflection that students demonstrated. The assessment scoring results in my study indicated that the judges had a moderate level of agreement assessment of student artwork using "The Criteria for Ascertaining Level of Students Reflections Upon Artwork and Critical-Thinking Skills Exhibited in Portfolios" tool to determine what level students were able to reflect upon his or her artwork in the portfolio accurately.

Dorn et al. (2004) conducted three studies as part of the Assessment Training Institutes (ATI) project funded by the National Endowment for the Arts. Art teachers from 59 elementary, middle, and secondary schools, 472 of their students, and 50 artists from 3 states participated in the project. Questionnaires were designed to determine what

criteria art teachers, art students, and artists use to evaluate their artwork. The

questionnaires had similar items that permitted comparisons of responses among the three

groups. Dorn et al. found that students' evaluations were based usually on the criteria

provided by the teacher and that students rarely were included in the assessment process,

even though students continuously evaluated their own artwork and often expanded the

list of criteria to include additional criteria of importance to them.

Table 2

Comparison of Criteria Most Frequently Used by Art Teachers,
Art Students, and Artists to Evaluate Art

Criterion	Art Teachers n = 59 % rank	Students at school n = 472 % rank	Students at home n = 380 % rank	Artists n = 50 % rank
Elements of art	94.9	73.9	60.3	58.8
Principles of design	94.9	42.8	41.1	60.0
Composition or use of space	94.6	55.8	50.0	84.0
Technical skill or craftsmanship	86.4	69.7	64.5	80.0
Personal expression	83.1	47.5	62.1	80.0
Originality	79.7	52.5	47.1	90.0
Attention to details	79.7	66.1	59.5	*
Improvement	78.0	55.3	44.5	86.0
Knowledge of concepts	72.9	46.8	43.2	*
Experimentation or risk taking	67.8	56.6	49.5	80.4
Safe use of materials	64.4	46.0	34.5	*
Cognitive processes	62.7	46.2	43.7	*

*Criterion not identified by artists.

The art teachers in the project identified a set of 23 criteria they used to evaluate

students' artwork. The art teachers almost unanimously agreed (94.9%) on a set of 5

criteria that included the elements of art, the principles of design, composition or the use

of space, and creativity. The art teachers' selections were compared with the artists and the students in order to learn if differences existed in the criteria each group used to evaluate their own artwork. The comparisons suggested that the arts teachers in this study share a common set of frames of reference for evaluating their students' artwork and that these art teachers agreed highly about criteria they use to evaluate their students' artwork.

Table 2 indicates the possible criteria students might use to evaluate their artwork. A total of 472 students, including 185 elementary-, 110 middle-, and 171 secondary-school students identified criteria they used to evaluate their own artwork while at school. The elements of art, skill with art materials, following the directions, detail in the work, neatness, representation of ideas, experimentation, use of space, learning something new, and new or different ideas were the most commonly reported criteria by half or more of the students. The study compared the three groups of students' criteria choices. The elements of art, skill, following the art teachers' directions, detail in the work, and neatness were used most frequently by students from all grade levels, but the percentage of student reporting use of each criterion decreased at each instructional level. Elementary-school students used these criteria more frequently than students at other levels. Secondary- and middle-school student's reported these criteria less frequently and they reported using more criteria than elementary-school students. For example, secondary-school (48%) and middle-school students' (41%) selection of criterion "use of the principles of design" was more frequent than elementary-school students' (38%). These finding suggest that middle-and secondary-school students in this study have learned more about art and consider a greater number of factors when evaluating their work than the elementary-school students did.

At school, the teacher controls the decisions about the art-making activities such as media, themes, and the criteria to evaluate their work. Students were asked if they made art at home, and 80% indicated that they did. At home, the students make the decisions about art-making activities such as media, themes, when and how long to work, and the criteria to evaluate their work. The reasons students make art at home influence the criteria selections they make to evaluate it. Making art at home may involve criteria that have little to do with the visual quality of the artwork and more to do with the experience of making it.

Comparisons of responses among the instructional levels of these students and criteria reveled distinctive differences. The secondary-school students ranked use of the elements of art first, followed by skills with materials, details, and neatness. As a group, the secondary-school students employed more criteria to evaluate their work that did the middle- and elementary-school students. By contrast, the elementary-school students employed fewer criteria to evaluate their artwork but used those criteria more than student from the other grade levels. The ratings in Table 2 illustrate that the secondary-school students use more criteria to evaluate their artwork at home than the middle- or elementary-school students.

The comparisons of criteria set used by the art teachers, art students, and artists indicate a number of similarities and differences (Table 2). Criteria that the art teachers most frequently used were "the elements of art" and "the principles of design." The students while at school also ranked "the elements of art" first. "Composition or use of space" produced another unique set of ranking. The art teachers ranked it second, the artists ranked it third, whereas the students ranked it seventh at home and eighth at

school. "Technical skill or craftsmanship" produced relatively high rankings in all groups.

The findings from Dorn et al. (2004) suggested a number different priorities among the different groups represented in this study. Greater levels of agreement were found among the art teachers and students in the criteria for evaluating artwork. Matching ranking was not produced for any criteria across groups, similar relative ranking were produced for some criteria. "Technical skill or craftsmanship" was ranked among the top five criterions for all groups. Differences in the ranking may be explained by different purpose for making art in these groups. The art teachers are concerned with developing a range of knowledge and skills among their students. The students in school focus on what art teachers teach. The students' art at home focus on skills with the media and personal satisfaction derived from their art. Most of the artists in this study were concerned with creating new and different work that contributes to their development of personal expression or style.

One major strength of the Dorn et al. (2004) study indicated that these art teachers believed the elements of art and the principles of design in art curriculum was essential for developing their students' understanding of the basic means of communication and production of work in the visual arts. Another important finding was the selecting criteria for evaluation of students' artwork was essential for these teachers to determine whether the students had acquired their curriculum content. The elements of art were the most commonly reported criteria by half or more of the students. The artist in this study viewed the elements of art and the principles of design as a vehicle for expression rather than a focus for developing their knowledge about art.

There were very few limitations to the Dorn et al. (2004) study. One limitation of this study was that no data were collected on the extent that student artwork was aligned with the National Standards for Visual Arts. Due to the national standards movement, teachers across the US have been challenged to develop criteria, create assessment tools, and provide evidence that students have met the various national and state content standards in the visual arts.

Dorn et al. (2004) indicated that the visual-arts teachers found the elements of art and the principles of design was essential for developing their students' understanding of the basic means of communication and production of work in the visual arts. The elements of art were the most commonly reported criteria by half or more of the students. In my study, "The Criteria for Ascertaining Level of Students Reflections Upon Artwork and Critical-Thinking Skills Exhibited in Portfolios" tool was used to determine what level students are able to reflect upon and describe their work of art using the vocabulary of the visual arts, the elements of art, and the principles of design, and to express their observations that included the size of the artwork, the medium used, the processes or techniques used to create the artwork, and the subject matter (figures, animals, objects, etc.). This study focused on the extent that student artwork is aligned with the various national and state content standards in the visual arts, specifically "Standard 5. Reflect upon and assess the characteristics and merit of their work" (The National Visual Arts Standards, 1994) exhibited in the portfolios and the instructional strategies visual-arts teachers developed that contributed to student's self-reflection skills and critical-thinking abilities.

"The Effectiveness and Use of Digital Portfolios for the Assessment of Art

Performances in Selected Secondary Schools" by Dorn and Sabol (2006) investigated the adjudication of secondary-school students portfolios of artwork in both traditional (actual pieces of student work) and electronic formats in order to investigate whether art teachers evaluate actual pieces of artwork in a traditional portfolio differently than a digital copy of the artwork. The participants included a total of 178 secondary-school visual-arts students and 29 secondary-school visual-arts teachers representing 3 school districts in Florida and one school district in Indiana.

The submission of secondary-school students portfolios of artwork for adjudication in both actual and in slide format has been an accepted practice by most universities and art schools that require portfolios for admission and for programs such as the International Baccalaureate (IB) and Advanced Placement Program in Studio Art (AP). Due to the increased availability and use of digital technology to duplicate actual works of art, students and teachers have used digital technology widely. In a number of college admission protocols, students are being asked to submit their artwork and other evidence of academic achievement in an electronic format (Dorn et al., 2004). In addition to providing information about the process and progress of the students' artistic development, portfolios also provide insight into the art teachers' instructional methods and into the curriculum. More importantly, portfolios allow students to reflect and learn from their own artwork and allow the teacher to assess both their individual artist growth and as well as the success of the art program.

Dorn and Sabol (2006) compared the equivalency of secondary-school visual-arts teachers' evaluations of portfolios of digital reproductions of students' artwork with evaluations of the same works of art in actual form and examined the utility of digital

technology in the assessment process. One of the major goals of the study was to examine and evaluate the use of student-made electronic portfolios of artwork as a strategy for assessing the art performances of students in secondary schools. Another goal of the study was to test student art-performance assessment reliably and to develop a reliable assessment method that could be scored accurately by teams of secondary-school visual-arts teachers in the context of the National Visual Arts Education Standards.

The Dorn and Sabol (2006) study utilized a one-group pretest-posttest design. The design consisted of two holistic evaluations of students' portfolios of artwork during a semester. The portfolios were evaluated midway through the semester and again at the end of the semester. Two teams of evaluators with each team consisting of three art teachers were used for both of the adjudications. The student portfolios consisted of four works of art that were judged during the first adjudication. Four additional works were added to each portfolio for the second adjudication to make a total of eight works of art. All of the portfolios were submitted in the actual and electronic formats. A total of 1,402 works were assessed using a blind scoring method. Over 3,762 scoring judgments were made of electronic and traditional portfolios.

The process used to judge the traditional portfolios required that a scoring sheet be attached to the cover of each portfolio. The scoring sheet included three separate boxes in which the judge wrote the number value from 1 to 4 that represented their evaluation of the traditional portfolio. The three judges independently viewed each traditional portfolio. After a judge had recorded the score for the portfolio, the score was concealed. The sheets were removed, and the data from them were recorded.

The process used to judge the electronic portfolios required that a master record

sheet that included all of the individual code numbers for each of the students and boxes in which to record their scores. The judges independently viewed each electronic portfolio on a computer and recorded the number value from 1 to 4 that represented their evaluation of the electronic portfolio on a master record sheet. Questionnaires and interviews were conducted with the art teachers to learn their views about the value of the adjudication process and the effectiveness about using electronic and traditional portfolios of student artwork as an assessment tool.

The analysis of data revealed that the reliability level among the raters was acceptable; no statistically significant differences existed between the judge's scores for portfolio assessment. The scores were slightly higher for traditional portfolios than the electronic portfolios. The average portfolio scores on the posttest was higher than the scores in the pretest by .05. The average scores of the electronic portfolio scores on the posttest were higher than the ones in the pretest by .17. In conclusion, the data show that the average scores from the raters for the electronic portfolio scores were slightly higher than the scores for the traditional portfolios across the two administrations. As raters become more skilled with the rating process, they may have had a tendency to be lenient. To examine whether these differences are statistically significant, a dependent-samples t test was used. Results from the analysis showed that the difference between the pretest and the posttest means was statistically significant (at .05 level) for electronic portfolios but not for traditional portfolios. This result indicates that the growth measured by the electronic portfolios was larger and more significant that the growth measured by the traditional portfolios of artwork.

The findings from this study suggest a number of conclusions about the use of

electronic portfolios in visual-arts courses at the secondary level for the purpose of assessment. The reliability of the art teachers' evaluations of students' actual artwork and electronic portfolios suggests that the adjudication process used in this study can produce quantifiable evidence to monitor systematically students' studio-art performances. The data suggest that art teachers can be trained to use this process to produce quantifiable evidence of students' learning. The conclusions made by Dorn and Sabol (2006) suggest that secondary-school visual-arts teachers can use the multiple-judge scoring process employed in this study to evaluate secondary-school students' portfolios of artwork to produce reliable measure of student achievement in the visual arts. One of the major findings of the Dorn and Sabol study indicated that portfolio assessment demonstrates that artwork by students in grades K to 12 can be assessed empirically using quantitative measures that are consistent with the philosophical assumptions of authentic learning based on and supported by the result of research involving students in grades K to 12 in three states.

Dorn and Sabol (2006) investigated the adjudication of secondary-school students portfolios of artwork in both traditional (actual pieces of student work) and electronic formats in order to determine whether art teachers evaluate actual pieces of artwork in a traditional portfolio differently than a digital copy of the artwork. The conclusions made by Dorn and Sabol (2006) suggested that secondary-school visual-arts teachers can be trained to evaluate secondary-school students' portfolios and produce reliable measure of student achievement in the visual arts. In my study, first I examined the secondary-school students portfolios of artwork. Second, I photographed students written reflections upon their artwork. Third, I evaluated the written reflections. Then, I trained two independent

visual-arts teachers to evaluate the students' written reflections and verified the results of my study.

"The Effect of Goal Setting, Self –Evaluation, and Self-Reflection on Student Art Performance in Selected 4th and 5th Grade Visual Art Classes" (Meale, 2005) focused on the effect of inclusions of cognitive and metacognitive activities, specifically self-evaluation and self-reflection, combined with an established digital portfolio assessment methodology to measure students' progress in two-dimensional (2-D) visual-arts production. This quasi-experiment research project involved the digitization of 171 fourth- and fifth-grade students' artworks and journal writings. Two groups of students representing seven schools in Florida participated in the study. Student journal writings provided baseline information on the effect answering the journal questions had on students' art performance. The beginning-of-the-term-portfolios, pretest, contained the first three to four 2-D digital recorded artworks. After completing an artwork, the art teacher or university student assistant used a digital camera to record digitally the student's artwork and inserted the image into the student's individual PowerPoint® portfolio. The researcher provided a template. The end-of-the-term portfolio, posttest, portfolio, was to include the last three artworks of the year.

During the 2003-04 school year, the art teachers from five elementary schools met at monthly intervals with the researcher for over 15 hours of training, scoring, and support sessions. The Fall sessions focused on how to create the digital portfolios, how to take better photos, how to solve technological issues, and how to work effectively with the university student assistants. The Spring session included scoring and training sessions. The art teachers had their experimental groups respond to writing prompts in the

student writing journals. The art teachers agreed to refrain from giving assessments or writing activities to the comparison groups. The comparison groups would only make art; the students in the comparison groups did not complete any writing, assessment, or tests in their art class. The student writing journals were collected and scored by the researcher using a holistic journal rubric. The general assumption made by the art teachers was that assessment had a positive effect on student art performance. The findings suggested that metacognitive self-reflective journal writing may increase student art performance (Meale, 2005).

The pretest and posttest portfolios were collected and scored using holistic rubrics. Before scoring the digital portfolios, the teachers made four distinct portfolios: two for each class. Portfolio 1/ Comparison contained the all the students in the comparison groups' pretest artworks. Portfolio 1/Experimental contained all the students pretest artworks in the experimental group. Portfolio 2/ Comparison contained all the students' posttest artworks in the comparison groups. Portfolio 2/Experimental contained all the students' posttest artworks in the experimental groups. For example, the pretest portfolio: student 1, artwork 1, artwork 2, artwork 3, student 2, artwork 1, artwork 2, artwork 3, and so on. Each combined portfolio was burned on to a separate compact disk read-only memory (CD-ROM) and coded.

The portfolios were scored using a holistic rubric for standards-based assessment in the visual arts developed by Dorn et al. (2004). The raters moved from computer to computer scoring one portfolio at each station. Each portfolio was scored three times and required the agreement of two judges. The scores were then analyzed. The results indicated there were no statistically significant differences between the comparison and

the experimental groups for the pretest period. There were no statistically significant differences in the posttest art performances of students among the schools.

The Meale (2005) study had several flaws. The researcher scored the student journals. Many performance-based assessments, such as Advanced Placement (AP) and International Baccalaureate (IB), require the agreement of two judges. Researcher subjectivity and the potential for assessment and evaluation bias on the part of the researcher may have tainted the results of the journal scores in this study. For this reason, the results of this study should not be generalized to apply to all fourth- and fifth-grade students' arts programs. Second, the sampling represented a small group of 171 fourth- and fifth-grade students from Florida. Third, no data were collected on the extent that the fourth- and fifth-grade portfolios were aligned with the National Standards for Visual Arts.

The student writing samples in my study were collected and assessed for the levels of reflection using the evaluative instrument, "The Criteria for Ascertaining Level of Student Reflections Upon Artwork and Critical-Thinking Skills Exhibited in Portfolios" (Appendix A) and "The Coding Sheets for Level of Student Reflections" (Appendix B) to establish the measurements. In order to avoid researcher subjectivity and the potential for assessment and evaluation bias on the part of the researcher, first I evaluated the student writing samples using "The Criteria for Ascertaining Level of Student Reflections Upon Artwork and Critical-Thinking Skills Exhibited in Portfolios" and "The Coding Sheets for Level of Student Reflections." Second, two independent visual-arts teachers verified the results of my study to produce a reliable measure assessing students reflections upon artwork.

To conclude the section of this literature review on portfolios as assessment tools, there is evidence to support the use of portfolios to enhance student learning and to measure students' levels of proficiency in the visual-arts. Dorn et al. (2004) found that teachers with appropriate training have the ability to conduct the assessment of K to 12 student artwork and create their own standards for adjudicating artworks subject to the abilities of the teachers, the students, and the schools. More importantly, these results suggest that portfolios are a viable option to traditional paper-and-pencil, true-false, or multiple-choice tests in assessing student progress in art. Dorn and Sabol (2006) recognized that secondary-school visual-arts teachers could use the multiple-judge scoring process to evaluate secondary-school students' portfolios of artwork and produce reliable measure of student achievement in the visual arts. Dorn and Sabol suggested that secondary-school visual-arts teachers could use the multiple-judge scoring process to evaluate secondary-school students' portfolios of artwork to produce reliable measure of student achievement in the visual arts.

Portfolios for Assessment and Evaluation in the Visual Arts in Canada, England, the Netherlands, and Portugal

The following section presents relevant research to better understand the process of visual-arts portfolio assessment and evaluation in Canada, England, the Netherlands, and Portugal. "Preparing for Portfolio Assessment in Art and Design: A Study of the Opinions and Experiences of Exiting Secondary School Students in Canada, England and the Netherlands" by Blaikie, Schonau, and Steers (2004) investigated what students value about portfolio assessment and if the students believe portfolio assessment as a valid preparation for their futures, particularly for students who plan to continue studying art in college. This small study utilized survey-questionnaires to compare student's opinions

and experiences of portfolio preparation for assessment in secondary schools. There were 107 participants in this study, representing three countries: Canada, England, and the Netherlands, of whom 17 (15.9%) did not indicate their gender, 26 (24.3%) indicated male and 64 (59.8%) indicated female. Of the participants in this study, 29 (27%) came from the Netherlands, 17 (15.9%) from England, and 61 (57%) from Canada.

Blaikie et al. (2004) defined a portfolio as a focused collection of pieces of visual art and design, often accompanied by reflective and explanatory written data. Portfolio collections are assessment instruments for studio-art and design students in Canada and the Netherlands, whereas the developmental coursework portfolio is a significant element of external assessment in England. Curriculum policies in Canada, England, and the Netherlands require teachers to engage their students in reflective critiques of art and design, an important process that reveals much about the student's thinking, work habits, effort, and progress. There are differences in the three countries definitions of curriculum content, theories of art, assessment, and evaluation. The curriculum policy and practice of group critiques is not universal.

One problem was evident: teacher subjectivity and the potential for assessment and evaluation bias on the part of teachers that has resulted in external assessment. An external assessment is the judgment of a visiting examiner, also known as a moderator, verifier, or reader. The jury method of assessment usually involves examiners or moderators to review final portfolios. This external assessment procedure is common of schools participating in international assessment programs such as the International Baccalaureate (IB) and Advanced Placement (AP). Individual teachers determine assessment strategies in Canada; there is no formal external assessment unless students

are enrolled in AP or IB programs. Conversely, in England and the Netherlands, there is national control over curriculum and assessment; criteria for assessment are set, and there is external examination or moderation.

The research questions were designed to distinguish between what students believe best practices in assessment should be like and what they actually have experienced. In Canada and the Netherlands, survey questionnaires were distributed to art and design students in the final year of secondary school. In England, they were distributed to student in advanced-level courses. This study utilized survey-questionnaires based on a 5-point Likert scale to compare student's opinions and experiences. Data entry resulted in detailed spreadsheets and deductive analysis thereof.

The findings focused only on the responses that revealed either significant national difference or points of agreement across all three countries. Responses to the statement "In my opinion, doing regular groups critiques of studio work (group crits) with my fellow students and teachers(s) should be an important part of the experience of learning in art and design" (Blaikie et al., 2004, p. 308), yielded some differences. Group critiques were valued by only 60% of students in Canadian high schools; however, over 90% of Dutch and English students believe group critiques are important. Blaikie et al. indicated that the majority of students in all three countries want to discuss their portfolio work regularly with their teachers. Students who had experienced peer review through group critiques on a consistent basis were more supportive of group critiques than those students who had not experienced group critiques.

There was contrast between different counties. In response to the statement "I think it is important that my portfolio be assessed by more than one person for the final

assessment to minimize subjective bias" (Blaikie et al., 2004, p. 308), the responses

indicated levels of concern about how students perceived the fairness of assessment in

each country.

In response to the statement "In my opinion, it is only a matter of luck whether

assessor(s) like a particular portfolio," (Blaikie et al., 2004, p. 309), the data suggest that

the Dutch students most strongly view assessment results as related to hard work rather

than luck, followed by the British students, and 14 % of Canadian students strongly

agreed. Blaikie et al. revealed that most students believed that teachers should be

interested to hear students' views and opinions of their own artwork. The English

students most strongly agreed to the importance of teachers hearing their views on their

own artwork. There was strong agreement among students in England and Canada that

their art-and-design courses provided a good foundation for further study. Students were

less supportive of the statement that they should be required to write reflective self-

critical comments about the quality of the work in their art portfolios. In all three

countries, there was strong support among students that portfolio preparation was a useful

and worthwhile learning experience. Most students in England and Canada agreed that

the actual experience of putting together their portfolios is likely to be useful compared

with students in the Netherlands.

Blaikie et al. (2004) concluded that the majority of students in this study believed

the portfolio was a worthwhile experience and received a foundation for further studies in

art and design. The strength of this study is clear, students in this study valued group

critiques and the opportunity to talk to their teachers about their work. There are a few

limitations with this study. First, the sampling represented a small group of 107

participants representing three countries with disproportionate numbers from the countries. Second, unresolved questions remain about the impact of assessment on student attitudes to learning.

In conclusion, Blaikie et al. (2004) examined what art students in Canada, England, and the Netherlands valued about portfolio assessment. The findings revealed that the students in all three countries indicated that the portfolio preparation was a useful and worthwhile learning experience. The students in this study also valued the group critiques and the opportunity to talk to their teachers about their work. The art students were not supportive of a requirement to write reflective self-critical comments about the quality of the work in their art portfolios.

Blaikie et al. (2004) presented relevant research to better understand the process of visual-arts portfolio assessment and evaluation in Canada, England, the Netherlands, and Portugal. The Blaikie et al. study focused on what the students valued about portfolio assessment, students believed that teachers should be interested to hear students' views and opinions of their own artwork. In this study, I focused on the visual-arts teachers' process of portfolio development in visual-arts classes at the secondary level in Northern California public high schools. My study compared the visual-arts teachers' opinions of and experiences with portfolios in visual-arts classes and examined students' reflective comments about the quality of their artwork exhibited in the portfolios.

In a similar study, Blaikie, Schonau, and Steers (2003) disclosed students' experiences of portfolio assessments in art differ based on gender. The small-scale study questionnaire-survey data indicated that students' experience of high-school portfolios assessment in art differs according to gender. Of the 107 participants, 90 of the students

indicated their gender: 64 female and 26 male. The findings inform that females are more likely than males to know and understand the qualities a teacher is looking for in their portfolio work. Second, females consider it more important than males to know and understand the specific criteria used for assessment. Third, it is important for females to discuss their artwork portfolios with their art teacher. Fourth, female's value talking about their art in group critiques of artwork with their teacher and classmates more than males value talking about their art in group critiques. The literature suggests biological differences, sociocultural influences, and patriarchal Western societies are some of the contributing factors to gender-based differences.

The major strength of Blaikie et al. (2003) study was that the findings pointed to identifiable differences between male and female high-school students' experiences of portfolio assessment in Canada, England, and the Netherlands. One limitation was the very small number of participants in the study. The second limitation is the over-representation of female art students. The female participants account for 71.1% of the respondents in the study, whereas 28.8% were males. The limitations of this study suggest that the data do not represent equally gender-based differences.

Participants in my study included male and female visual-arts teachers and visual-arts students from high schools that represent diverse characteristics, including geographic regions in California, school poverty level, academic performance, and percentage of students identified as English learners.

In Portugal, Pereira de Eca (2005) investigated the effects of a new assessment instrument, portfolios for external assessment. Pereira de Eca identified several positive outcomes of portfolios for external assessment at the end of secondary education (age

17+). This small study was conducted in five Portuguese secondary schools between 2001 and 2004.

The design of the assessment instrument and procedures was developed in three stages. At stage one, the instrument (portfolio) and assessment procedures were developed through a pilot study involving seven art teachers and 51 art students from one secondary school in Portugal. The design of the instrument was limited by the need to establish criteria that would be subject to common interpretation by the users. The agreed criteria included (a) record personal ideas (Reports or notes), (b) critically analyze sources from visual culture (Investigation), (c) develop ideas (Preliminary studies), (d) present an organized sample of works (Finished Products), and (e) evaluate and justify the qualities of the work (Self-assessment report). Detailed instructions for students and teachers were written: students developed their portfolios according to a project brief. In compiling a portfolio, students explored a theme and planned, elaborated, presented, and evaluated their work.

At the second stage, the teachers were trained to assess the students' portfolios using visual exemplars of students' work to reach common interpretations of criteria and standards during five one-day meetings. In order to achieve consistent results, a procedure for external verification of the internal marks also was designed. The pilot study helped to redefine the instructions, criteria, and procedures used in the main trial.

At the stage three, the main trial sample included five schools from diverse geographical Portuguese regions; the participants included 10 art teachers and 117 students. Teachers' approaches to art education and students' motivations were also very diverse. According to Pereira de Eca (2005), "at School P, in the teacher's view students'

poor attitudes and lack of motivation were a consequence of negative educational practices" (p. 212). In contrast, at School B "the teacher had no problems applying the new instrument with the students because she already assessed students in a similar way and fostered the kind of knowledge, understanding and skills required by the new assessment instrument in her classes" (p. 212).

Quantitative and qualitative research methods were used, data collection included observation, documents, interviews, questionnaires, teachers' and external observers' reports, and the results of portfolio marking exercised. This method of data collection was faulty. Quantitative data were not available. There was no way to know how many of the students and how many of the teachers from the pilot study also participated in the main trial stage. Given the incomplete data gathering, the findings of the study present challenges to evaluating the effectiveness of this experiment.

One unique aspect of Pereira de Eca (2005) experiment was the teachers' ownership of the assessment, sharing of power, and constructing knowledge instead of a top-down assessment. The teacher questionnaire responses revealed there were several benefits in the new assessment system. According to one of the teachers, " examinations used to be imposed by the government" (p. 212). Another teacher reported, " Now, I think that I can assess students with more consistency and I can give more valuable assessment feedback to students" (p. 216).

The students viewed the portfolios as motivational. The portfolio approach was found to respect the students' voice and personal styles. Students were given a considerable degree of autonomy, such as the selection of themes and the selection of works for inclusion in the portfolio. The student questionnaire responses revealed there

were increased opportunities for student motivation and independent learning. According

to one student,

> The portfolio was good essentially because we had to make different works; it
> was not prescriptive; we had a theme and we had to develop the work…From our
> heads; not like "go and draw, draw a bench with a monkey"…I did a portfolio
> with things I like to do and showing what I wanted to show. (p. 213)

There were a few reported difficulties implementing the new assessment. A few

teachers were nervous about letting students investigate themes and convinced their

students to engage with more conventional projects. According to one teacher,

> The main difficulties in implementing the portfolio with my art class were related
> to the rationale of the portfolio; it was very difficult to require students to think
> independently because they are used to following detailed prescriptions for each
> task. (p. 213)

There were several positive outcomes of the experiment. Pereira de Eca (2005)

reported the portfolio, as an extended task, provided a valid and authentic task related to

the art curriculum. Students found portfolios to be motivating and foster constructive

learning, dialogue, and co-operation between students and teachers. The new portfolio

assessment procedures developed communities of assessors, increased consistency of

examination results, and provided professional development opportunities for the

teachers. After the main trial, nine teachers appeared convinced about the positive

qualities of portfolio assessment as a learning strategy and as an instrument for

summative assessment.

Pereira de Eca (2005) remarked that teachers appreciated the opportunity to learn

new assessment procedures and improve their relationship with their students through

using portfolios for external assessment. The portfolio, as an extended task, provided a

valid and authentic task related to the art curriculum. In addition, the use of portfolios for

assessment purposes provided new perspectives on learning. The new portfolio assessment procedures provided professional development opportunities for the teachers. The teachers appreciated the opportunity to learn new assessment procedures and improve their relationship with their students through using portfolios for external assessment. Pereira de Eca found that some teachers felt overloaded by the portfolio experience. Using the new assessment procedure required time-consuming teacher training, more meetings, and reports to be written that added to the teachers' workload.

To conclude this section of the literature review on portfolios in the visual-arts for assessment and evaluation in Canada, England, the Netherlands, and Portugal, there is evidence to support the use of portfolios as assessment instruments for art students in Canada, England, the Netherlands, and Portugal. In England and the Netherlands, there is national control over curriculum and assessment; criteria for assessment are set, and there is external examination or moderation. The jury method of assessment usually involves examiners or moderators to review final portfolios. Conversely, in Canada, individual teachers determine assessment strategies; there is no formal external assessment unless students are enrolled in AP or IB programs. In Canada, England, the Netherlands, and Portugal, there was strong support among students that portfolio preparation was a useful and worthwhile learning experience.

The Blaikie et al. (2004) and Pereira de Eca (2005) studies further developed and added dimension to portfolios in the visual-arts for assessment and evaluation and indicated that portfolio preparation is a worthwhile learning experience for visual-arts students. My study explored student portfolios of artwork in a variety of visual-arts courses and the instructional methods visual-arts teachers implemented in order to gain

an understanding of the student's thinking, work habits, and progress in visual-arts courses at the secondary level in Northern California.

Portfolios as an Instructional Strategy to Develop Students' Self-reflection Skills and Critical-thinking Abilities

In the review of the literature, there is evidence to support for the need to develop students' reflective thinking and critical-thinking abilities using portfolios (Barrett, 2007; Brown, McCrink, & Maybee, 2003; Juneiwicz, 2003). The literature review related to portfolio development and student self-assessment indicated several studies have been conducted with graduate programs in teacher education and nursing preparation programs for the purposes of connecting theory and practice. There is little research on the effect of self-reflection by students on developing critical-thinking skills using Bloom's (1956) Taxonomy of Educational Objectives or Anderson et al. (2001) Taxonomy Table to measure growth in critical-thinking abilities at the secondary level. Because of the lack of research to date between portfolio development as an instructional strategy that contributes to students' reflective-thinking and critical-thinking skills in visual-arts courses at the secondary level, it is not possible to test a theory. For this reason, a qualitative approach was used in this study. This study attempted to fill that void.

While developing portfolios, students participate in the evaluation process, selecting materials to include as evidence of specific learning and reflective-thinking skills. Implementing portfolio assessment in a manner that encourages student's reflective- thinking has many potential benefits. According to Barrett (2007),

> An educational portfolio contains work that a learner has collected, reflected upon, selected, and presented to show grow and change over time, work that represents an individual's or an organization's human capital. A critical component of an educational portfolio is the learners' refection on the individual pieces of work (often called artifacts) as well as an overall reflection on the story

that the portfolio tells about the learner. (p. 436)

Barrett's (2007) REFLECT Initiative was designed as a 2-year action research study with the overarching goals of collecting data and drawing conclusions about the impact electronic portfolios (*e*-Portfolios) have on secondary-school student learning, motivation, and engagement and about a better understanding of how teaching practices and strategies change with *e*-Portfolio integration. REFLECT is an acronym for "Researching Electronic Portfolios: Learning, Engaging, and Collaboration through Technology." More than 20 sites (schools, districts, and states) participated in this mixed methods study. The project engaged up to 6,000 secondary-school students from across the US in the use of a common toolset (TaskStream software) that provided tools for three basic types of web-based student *e*-Portfolios for 2 years. The project included a professional development component that included TaskStream (a web-based software) technical support to aid in the design and execution of personalizing a school's portfolio program for their own teaching and learning needs. The key research questions focused on evidence of deep learning, ownership of *e*-Portfolios, benefits and obstacles, differences between traditional paper and *e*-Portfolios, and demonstration of assessment for learning and assessment of learning.

Twenty site-visits of schools were completed, and a meta-analysis of all the site visits was written. Other data-collection strategies included online surveys completed by teachers and students, professional portfolios, and reflective journal kept by the teachers. There was diversity in the number of schools that participated in the study, four in urban areas, four in rural areas, and fourteen in suburban communities. There was diversity in the number of teachers in schools implementing the project. There was diversity in the

five different curriculum content areas being documented in the student portfolios in the sites that included English, Language Arts, and Foreign Language (6), Career and Technical Education (4), Technology (3), Social Studies (2), and multidisciplinary (5).

After the site visits were completed, the 20 sites were classified confidentially as to their level of implementation: Low, Medium, or High. In the six sites classified as Low, the students were using TaskStream primarily as an online storage of their digital work with little or no interactive feedback between the teacher and the student. In the seven sites classified as Medium, the students showed use of various technology tools, including Directed Response Folio (DRF) a structured assessment portfolio, and were using the system to facilitate some interactive feedback between the teacher and the student. In the seven sites classified as High, the students demonstrated creative use of TaskStream or other multimedia tools, with relatively high levels interactive feedback between the teacher and the student and student-to-student interactive feedback.

The highest level of implementation was in the sites implementing level-wide (2 out of 2) and in Language Arts (4 out of 6). Barrett (2007) indicated that Language Arts teachers may understand reflection and are experienced in using portfolios for formative assessment. The lowest level of implementation was in the sites where a single teacher was leading the project with a few students in a school. This important finding validates the assumption that content and reflection on learning is more important than technology in implementing electronic portfolios. The focus of the portfolio development should be on learning and not on technology.

Barrett (2007) identified a several problems facing the "one-sies" (the single teachers in a school site). When there were no other support teachers in the school site,

there was no community of practice. When there were two teachers participating in a school site, there was an opportunity for the teachers to share ideas for technology integration and to support one another. In the sites that had a strong teacher leader or an active technology coordinator, there was stronger support for the teachers implementing the *e*-Portfolio and more support for the technology components of the implementation, such as scanning and sizing images for the *e*-Portfolios. The teachers who had prior experience using the technology tools and the teachers with prior paper-based portfolio experience were able to start quickly implementing the program with their students. The teachers who understood reflection and metacognition and used assessment as a learning strategy to provide feedback to their students were most often in the high group. Other indicators of high levels of *e*-Portfolio success use included the teachers having technology integration strategies, a higher level of technology skills, and a support system.

One of the major strengths of Barrett's (2007) project was the large sample group, the project engaged up to 6,000 secondary-school students from across the US from 20 different school sites in eight different states. There was diversity in the five different curriculum content areas being documented in the student portfolios in the sites. One limitation of this study was that the visual-arts were not included in the curriculum content areas being documented in the student *e*-Portfolios.

In conclusion, Barrett's (2007) findings suggested that the teacher's role was critical to success of this *e*-Portfolio project. For many teachers, there was a dual learning curve: learning the software tools and learning to use *e*-Portfolios with students. The teachers who had prior experience using the software tools and the teachers with prior

paper-based portfolio experience were able to implement the program promptly with their students. The teachers who understood reflection and metacognition were able to provide feedback to their students.

Barrett's (2007) study indicated several key factors that contributed to successful portfolio implementation that are important to my study. First, the teacher's knowledge of metacognition and implementation of reflection as a learning strategy and provided feedback to his or her students helped the students' development of reflective-thinking and critical-thinking. Second, the focus of the *e*-Portfolio should be on learning and not on technology. For the purpose my study, two key factors were explored. First, the different instructional strategies that visual-arts teacher's employed to develop students' reflective thinking and critical-thinking abilities in visual-arts courses at the secondary level. Second, the different instructional strategies that visual-arts teachers' employed to develop portfolios of student artwork in visual-arts courses at the secondary level. The portfolios were examined for evidence of students' reflective thinking and the development of students critical-thinking abilities exhibited in portfolios; the absence or presence of technology was not the main focus of my study.

One of the most desired skills in the workplace today is that of reasoning and thinking, often referred to as critical-thinking skills. A cross-sectional survey study conducted by Brown et al. (2003) researched the impact of the portfolio development process as an instructional strategy that promoted increased critical thinking, organization, communication, and self-reflection abilities of adult learners. The case study began with eight adult learners from different ethnic, gender, and age groups representative of the student population of a nontraditional undergraduate program with a

portfolio component. Field notes and a researcher's journal were kept as point of additional analysis. The data were analyzed according to grounded theory procedures. The process led to the recognition of themes and sub themes from the portfolios and the interviews. A total of 1,227 students received a 24-question survey using a 4-part Likert-type scale to assess students' portfolio experience. The response rate was 348 or 29% usable returned surveys. Item analysis and descriptive statistical analysis were calculated for each survey question, and a linear regression analysis of critical thinking, communication, organization, and writing was performed. The qualitative analysis identified three major findings after developing a portfolio: (a) students expressed a change in their understanding of their abilities and of themselves, (b) the students gained learning competencies in several areas, and (c) students better understood the role of work in their lives.

The first group of questions called Leadership/Personal Learning examined students' learning outcomes that were related to personal or self-development. Increased organization, communication, critical-thinking, self-esteem, self-knowledge, and self-confidence were reflected in 6 of the 11 items from this construct. The second group of questions, designed Work-Related Learning, examined how much students believed that completing the portfolio process transferred learning to their work environment. Sample items such as recognition of mentors, value of work in career development, and value of work in learning represented three of the six items from this construct.

Item analysis, using the reliability analysis procedure, was used to analyze the overall conceptual reliability of the items with each group of questions (Cronbach's coefficient alpha) to examine the relationship of each item to the group total with the item

removed from the total (corrected item-total correlation) and to gain a sense of the contribution of each item alone to the total (squared multiple correlation). Item means were calculated to assess relative value within each group. Reported means were based on a 1 to 4 scale: strongly agree, agree, disagree, and strongly disagree. For the purpose of this paper, item analysis of the following two constructs are explored.

The construct of Leadership and Personal Learning items closely connected to Work-Related Learning consisted of 11 items related to personal and self-oriented learning outcomes following the completion of the portfolio process. The reliability analysis suggested that the Leadership and Personal Learning constructs indicated students reported self-confidence as having the higher overall relationship, followed by moderately high relationships with self-knowledge, self-esteem, critical-thinking, self-reflection, pride, writing, and organizational skills to the construct of Leadership and Personal Learning. In terms of means alone, accomplishment (3.7) was the highest of all items, followed by self-reflection (3.4), pride (3.4), motivation (3.3), self-knowledge (3.3), and empowerment (3.24) indicated a strong sense of importance by the students to these items.

The construct of Work-Related Learning items consisted of six items related to the transfer of learning from the portfolio preparation process to the work environment. Interpretation of the work-related learning construct indicated that three items, value of work in learning, role of work in career development, and role of work in adult development, were the most highly associated items with the overall construct followed by learning from community activities and learning from mentors. Applied portfolio learning to work and personal life represented the third highest level of relationship to the

overall construct. Cronbach's coefficient alpha for this construct is .90, a very high level of reliability.

The findings for the descriptive statistics of the 24 survey questions support the findings in the qualitative study. In response to survey question #9 (increase organization skills), 83.7% of the respondents strongly agreed or agreed that the portfolio development process increased their skills in this area. In response to survey question #10 (increase writing), 82.23% of the respondents strongly agreed or agreed that they increased as a result of creating a portfolio. In response to survey question #11 (increase in critical thinking), 83.24% of the respondents strongly agreed or agreed. In response to survey question #12 (increase in self-reflection), 93.24% of the respondents strongly agreed or agreed that they increased in self-reflection as a result of creating a portfolio. Given the high percentages of responses that strongly agreed or agreed, the findings support consideration of portfolios as a viable instructional strategy for students to increase performance through increased awareness.

Statistics include an overall statistically significant correlation coefficient of .84 and an r squared value of .70. Both improved critical thinking and improved organization skills accounted for the most variance in the criterion item of writing with 20% and 16%, respectively. The qualitative and quantitative findings of this study indicate the portfolio's potential as an instructional tool both to identify prior learning and stimulate increased competencies in several areas. The students indicated that they increased their communication and organizational skills, critical-thinking and self-reflection abilities from developing a portfolio based on their careers. The findings by Brown et al. (2003) suggest that the portfolio development process engages students, often for the first time,

in rigorous reflection on and expression of their real-life experiences and the learning derived from them. Brown et al. concluded that, "adding portfolio development to traditional classroom activities may be one way to increase the connection between the academy and the world of work" (p. 18). In addition, the findings indicated that the portfolio's potential as an instructional tool served as a reflective bridge between the learner, the school, and the workplace. One major strength of this study was the sample group of learners from different ethnic, gender, and age groups representative of the student population. One limitation of this study was the response rate of 348 (or 29% usable returned surveys) represents a relatively small portion all the students who participated in developing a portfolio.

In conclusion, few studies have judged empirically the efficacy of the use of portfolios to assess neither high-school students nor adult learners in undergraduate programs. Brown et al. (2003) investigated the portfolio development process as an instructional strategy that promoted increased critical-thinking, organization, communication, and self-reflection abilities of adult learners based on careers. For the purpose my study, I focused on the development of portfolios as an instructional strategy that contributed to students' self-reflection and critical-thinking abilities through written reflections exhibited in the portfolios among high-school students in visual-arts classes in Northern California.

Juneiwicz (2003) studied portfolio use in student-led conferences that included 126 students in grades sixth through eighth, 15 teachers, and 10 of the students' parents from an ethnically diverse suburban school in Maine. The purpose of the study was to examine teachers', students', and parents' perceptions of the effectiveness of student-led

conferences using portfolios for promoting the skills of responsibility, reflection, self-assessment, and goal setting. The data collection included surveys of teachers, students, and parents using a 5-point Likert scale; interviews with the teachers, students, parents, and school principal; and the researcher's role as a participant-observer in the classrooms.

Juneiwicz's (2003) role as an observer in the classroom found that several teachers focused on promoting life-long skills during the portfolio process. In these classrooms, teachers used the guiding principles of the state standards to evaluate the portfolio work. The State of Maine standards "identify the knowledge and skills essential to prepare Maine students for work, for higher education, for citizenship, and for personal fulfillment" (p. 75). The portfolio process addressed these objectives by encouraging students to take responsibility for their own work through reflection, self-assessment, goal setting, and explaining their work to their parents. The title "Student Portfolios and Involvement in Parent-Teacher Conferences," clearly indicated that teachers, students, and parents would all be present and the conferences were student led.

A review of the data gathered by surveys, interviews, and notes collected revealed the large majority of stakeholders reported the use of the portfolios in student-led conferences was effective in promoting the real-world skills of responsibility, reflection, self-assessment, and goal setting. The results of the surveys reveal that the majority of the stakeholders were in favor of promoting student-led conferences using portfolios. One teacher commented that "The students have been excited to share their portfolios with their parents and thus become more engaged and vested in the whole process" (Juneiwicz, 2003, p. 75). The students rated the conferences positively, one-eighth grade

student said, "If you can explain something to someone else, you really understand it" (p. 75). One parent remarked that

It is the evidence of a child's growth that is supported though student-led conferences. I also strongly believe that learner expectations are advanced as well. Kids at any age can set goals, reflect, and self-assess if given the opportunity. Student led conferencing allows that to happen. (p. 75)

The three groups of stakeholders also made a few negative comments. Some of the teachers opposed to the portfolio process provided low ratings to all 10 items on the teacher survey. A teacher commented, " The high-achieving students seem to benefit from this approach. I find that the less motivated students with minimal parental support see it as another unwelcome demand upon their energy" (Juneiwicz, 2003, p. 75). The teachers' interview commented that they were concerned about the teaching time it would take and with the amount of time the portfolio process took. Students also were concerned with the amount of time the portfolio process took. One student commented, " I do not enjoy doing the portfolios because I think it is to much of a hassle" (p. 75). One parent commented, " I wish that at least one conference was between teacher and parent- no children. There are many things that I'm uncomfortable discussing with my daughter present, and I don't think that I should have to set up a different time" (p. 75).

Juneiwicz (2003) findings suggested that using portfolios in student-led parent conferences carries important value for the teachers, parents, and students. The majority of stakeholders reported the use of student-led conferences were effective in promoting the real-world skills of responsibility, reflection, self-assessment, and goal setting. Juneiwicz suggested that national, state, or local standards potentially could provide a framework to focus the portfolio process on developing the life-long skills students' need in the real world.

There are several key limitations of this study. One essential limitation of this study was that Juneiwicz (2003) did not collect data on what the students discussed during the conferences when explaining their work to their parents. Second, the small sample group represented only 15 teachers, 10 parents, and 126 who students participated in the study. Third, it was not made clear either what type of portfolio was created, traditional or electronic, or what was exhibited in the portfolios, or the number of items in the portfolio to provide evidence of student learning and growth over time. Fourth, it was not stated if the teacher dictated specific assignments to include in the portfolio or the student selected assignments to include in the portfolio. Fifth, neither the amount time the students had to develop the portfolio nor the average duration of each student-led parent conference were mentioned.

In conclusion, few studies have judged the effectiveness of teachers', students', and parents' perceptions of student-led conferences using portfolios. One major strength of Juneiwicz (2003) study was her attention to upholding the State of Maine standards "identify the knowledge and skills essential to prepare Maine students for work, for higher education, for citizenship, and for personal fulfillment" (p. 75) through the development of student-led portfolio conferences that addressed these objectives by encouraging students to take responsibility for their own work through reflection, self-assessment, goal setting, and explaining their work to their parents. Juneiwicz (2003) concluded that using portfolios in student-led parent conferences carries significant value for the teachers, parents, and students. In this study, I examined portfolios for evidence of students' self-reflection skills and critical-thinking abilities developed in visual-arts classes as evidence that visual-arts teachers uphold The National Visual Arts Standards

(1994) vision of what students should know and be able to do, specifically, "Content Standard #5: Reflecting upon and assessing the characteristics and merits of their work and the work of others." In addition, the student portfolios observed in visual-arts classes at the secondary level in Northern California provided evidence of the Visual- and Performing-Arts Framework for California Public Schools (2004) expectations for teachers to "help students prepare portfolios of their work" (CDE, 2004, p. 163).

To conclude this section of the literature review, there is evidence to support the use of portfolios as an instructional strategy to develop students' self-reflection skills and critical-thinking abilities. Barrett's (2007) suggested that the teacher's role was critical; the teachers who understood reflection and metacognition were able to provide feedback to their students. Brown et al. (2003) indicated that students increased their communication and organizational skills, critical-thinking and self-reflection abilities from developing a portfolio based on their careers. In addition, Brown et al. contended that the portfolio development process engaged students, often for the first time, in rigorous reflection on and expression of their real-life experiences and the learning derived from them. These findings suggest that portfolio development as an instructional strategy promoted increased critical thinking, organization, communication, and self-reflection abilities for the students. Juneiwicz (2003) concluded that using portfolios in student-led parent conferences carries significant value for the teachers, parents, and students. In developing portfolios, students participate in the evaluation process, select materials to include as evidence of specific learning, and develop reflective-thinking skills. The following section will examine the relationship between visual-arts instruction and critical thinking.

The Effects of Visual-Arts Instruction on Critical Thinking

Few empirical studies have been conducted on the effects of visual-arts instruction on students' reflective-thinking skills and critical-thinking abilities. In the following review of the literature, Lampert (2005) and Shin (2002) provided evidence of the effects of visual-arts instruction on students' reflective-thinking skills and critical-thinking abilities. Shin focused on the effectiveness of a metacognitive art-criticism teaching strategy with 15 high-school graphic-arts students in grades 9 through 12 during 2001. Lampert compared the critical-thinking dispositions between arts majors and nonarts majors at a public university. Lampert found that the arts builds strengths in several critical-thinking dispositions and provided evidence that the arts enhance the disposition to think critically. Both studies contributed to the knowledge base of the development of students' reflective-thinking skills and critical-thinking abilities through visual-arts instruction.

The purpose of Shin's (2002) study was to investigate whether students' critical-thinking skills and art-critiquing abilities improved through the metacognitive art-criticism teaching strategy (MAC-CT) developed by Shin that employed computer technologies, CD-ROM, the Internet, online web discussion, and a word processor. Shin also examined the effects of the MAC-CT on attitudinal change toward art and art criticism. Last, his study examined how participants responded to the MAC-CT curriculum unit.

Shin (2002) employed a quasi-experimental design involving one each treatment and control group. The sample consisted of 36 students with a wide range of socioeconomic levels from Tallahassee, Florida. The control group did not receive any

art-criticism lessons and remained in the computer-graphic art classroom to work on the graphic-design projects. The treatment group was given art-criticism instruction that incorporated metacognitive knowledge and strategies as well as computer technology over a 6-week period, 2 days per week. The treatment group received art-criticism lessons employed in the metacognitive art-criticism teaching strategy consisting of five major activities: (a) learning art vocabulary with the interactive multimedia CD-ROM, (b) introductory lessons on thinking, talking, and writing about works of art through the CD-ROM, (c) Internet research activities to gather and use information about artworks, (d) discussion activity by means of the Virtual Chatting supported by the Internet, and (e) writing an art-criticism essay by means of a word-processing program. The students in the treatment and control group were asked to take posttests: The Cornell Critical Thinking Text Level X, the Art Attitude Inventory, the Art Criticism Knowledge and Attitude Inventory, and an art-criticism essay test. The critical essays about a piece of artwork before and after the treatment were measured by two judges who applied the Art Criticism Assessment Scale that include five elevation criteria for three art-criticism sections: description, interpretation, and judgment. In addition, the treatment group took a Technology Survey. The respondents were encouraged to make suggestions and express opinions relevant to the use of computer technology and in learning art criticism in all aspects. After the posttests, Shin conducted informal interviews with 6 participants in the treatment group. The interview data were transcribed for data triangulation.

The results from Shin's (2002) study indicated no statistically significant effects of the MAC-CT strategy on either student's critical-thinking skills or art-critiquing ability. Shin indicated that the students who participated in the study maintained their

current level of critiquing ability. In addition, Shin found a relationship between the

students' attitude change toward art and art criticism. The findings from the pretest and

posttest scores on both groups showed a statistically significant difference between them.

> Students demonstrated their attitude change through answers to the following
> questions; art is a good pastime, art credit should be required for high school
> graduation; they enjoy taking art course in school; art is an important mode of
> expression; they enjoy the beauty of such things a paintings, music, and sculpture.
> (p.136)

The control group showed statistically significant attitudinal changes on the

posttest in some of their answers: "art can provide an outlet for suppressed emotions and

art is needed for all people; art class activities help relieve physical tensions" (p. 137).

Shin explained the control group spent more time on their studio projects, while the

treatment group lost their studio opportunities. This result demonstrated the students

"preference for hands-on studio production rather than discussing and writing about

works of art" (Shin, 2002, p. 137).

One of the strengths of Shin's study is that it is one of the few studies conducted

at the high-school level that examined the relationship between visual-arts instruction and

critical thinking. Another strength is that Shin utilized computer technologies that are

CD-ROM, the Internet, online web discussion, and a word processor. The data suggested

that the students in his study displayed positive responses toward the Internet research

activities, the use of interactive multimedia, and that the instructional technology played

an important role. Shin's strategy of implementing computer technologies in visual-arts

classroom for instructional purposes suggests an important direction for future research.

One of the limitations of Shin's (2002) study was that it was conducted with 36

students over a 6-week period, 2 days per week. The final tally for statistical analysis

was 15 students. This small sample size might have affected the results of Shin's study.

The results of this study should not be generalized to all visual-arts students in grades 9

through 12. The results of Shin's study indicated that were no statistically significant

correlations between art-critiquing ability and critical-thinking skills found in the control

group and the treatment group examined in his study. Future similar studies may consider

devoting more instructional time to the MAC-CT unit to produce meaningful results.

Furthermore, future studies may be interested in the number of visual-arts courses

participants have completed in high school prior to the MAC-CT instructional unit. In

this study, I observed visual-arts classrooms at the secondary level in Northern

California, interviewed visual-arts teachers who have facilitated portfolios of student

artwork, and investigated how visual-arts teachers encouraged student's self-reflection

and development of critical-thinking skills with and without instructional technology. In

addition, I examined and evaluated students written reflections about his or her artwork

that included two of Shin's elevation criteria for art criticism: description and judgment.

Similar to Shin, two judges were chosen to assess the written reflections from the

portfolios independently. When rating each section, description and critique, judges were

asked to apply "The Criteria for Ascertaining Level of Students Reflections Upon

Artwork and Critical-Thinking Skills Exhibited in Portfolios" and record his or her

evidence on "The Coding Sheets". The sum of all three scores were used as an overall

rating. This assessment method helped to ensure interjudge reliability.

Lampert (2005) compared the critical-thinking dispositions between arts majors

and nonarts majors at a public, urban university on the East coast. Data were collected

from a sample of 141 undergraduates using quantitative data from the California Critical

Thinking Disposition Inventory (CCTDI), a 75-item Likert-type survey instrument to test critical-thinking dispositions. The participants consisted of four groups: freshmen non-arts students, freshmen arts students, junior and senior nonarts students, and junior and senior art students. The CCTDI allowed for comparisons of scores that measure oppositions to or endorsement of characteristics inherent in the disposition to think critically.

The scores on the CCTDI were compared using analysis of variance (ANOVA) statistical procedures to investigate mean variations between the groups. No statistically significant difference in mean total CCTDI values was found among the four individual groups or between arts and nonarts majors. Juniors and seniors had a statistically significant higher mean total than freshman. Results of ANOVAs on the subscales showed that the junior and senior arts students in the sample scored significantly higher overall or on average than all freshmen on three of the subscales within the research instrument: truth-seeking, systematicity, and inquisitive. The nonarts students scored statistically significantly higher than the arts students on systematicity. The systematicity subscale is described as measuring " the tendency toward organized, orderly, focused, and diligent inquiry" (Lampert, 2005, p. 225). In comparing the arts and the nonarts students, ANOVAs on the subscales showed that all arts students in the sample scored statistically significantly higher, on average, than all nonarts students on three of the subscales suggesting that the visual-arts curriculum and instruction may significantly enhance critical-thinking dispositions: truth-seeking, critical-thinking maturity, and open-mindedness.

In her research, Lampert (2005) found a strong indication that the statistically significant differences that exist between arts and nonarts undergraduates in this study can be attributed to the three subscales. Lampert explained that the descriptions of exactly what these three subscales measure are aligned with research and theory on arts instruction:

> The *truth-seeking* subscale targets the disposition of being eager to seek the best knowledge in a given context, courageous about asking questions, and honest and objective about perusing inquiry even if the findings do not support ones' self-interests or one's preconceived opinions.
>
> The *open-mindedness* subscale addresses being tolerant of divergent view with sensitivity to the possibility of one' own bias.
>
> The *maturity* subscale targets the disposition to be judicious in one's decision making. (p. 225)

Lampert (2005) pointed out that one of the key components of art students' experiences is the studio critique is the "discussion of the strengths, weaknesses, successes, and failures of their own work" (p. 224). Lampert elaborated that

> Visual art students think critically when discussing each other's work, other artists' work, and when solving the problems of how to visually depict forms and concepts. No road maps are available to students approaching empty space which must be filled with effective visual communication, or when interpreting other artists' visual messages. These processes include all of the elements which research has shown impact critical thinking: independent inquire, problem solving, interactive discussion, and analysis. (p. 224)

One major strength of Lampert's (2005) study was her findings that studying the arts builds strengths in several critical-thinking dispositions and provides evidences that the arts enhance the disposition to think critically. In addition, Lampert recommended providing nonarts students to more critique-like discussions in nonarts settings. Her research is valuable in showing the relationship between the effects of visual-arts instruction and critical thinking. There were very few limitations of Lampert's study. One

limitation was the small sample size of 141 arts majors and nonarts majors at a public university on the East coast. The results of this study should not be generalized to all college-level students. In addition, Lampert's study was that there was no indication of number of visual-arts courses participants had completed in high school or at the college level prior to the study. In this study, I observed visual-arts courses at the secondary level in Northern California, interviewed visual-arts teachers who facilitated portfolios of student artwork, and investigated how visual-arts teachers encouraged student's self-reflection and the development of critical-thinking skills. As Lampert noted, one of the key components of an art student's experiences is the studio critique, the "discussion of the strengths, weaknesses, successes, and failures of their own work" (p. 224). In my observation of visual-arts teachers and students at the secondary level in Northern California, I explored visual-arts teacher's instructional approaches to art student's experiences in reflecting upon his or her artwork that included the strengths and weaknesses of their own artwork.

In conclusion, few studies have been conducted on the effects of visual-arts instruction on critical thinking. Shin (2002) explored the effects of the MAC-CT strategy on student's critical-thinking skills and art-critiquing ability. Shin (2002) found a relationship between art-critiquing ability and critical-thinking skills and the effects of the strategy on the students' attitude change toward art and art criticism. Lampert's (2005) found that studying the arts builds strengths in several critical-thinking dispositions and provides evidences that the arts enhance the disposition to think critically.

Summary

It is important for visual-arts students at the secondary level to create original works of art, to develop portfolios to preserve their artwork, to reflect upon their artwork, and to assess their artwork. In developing portfolios, students participate in the evaluation process, select materials to include as evidence of specific learning, and develop reflective-thinking skills. Portfolios are an essential instructional strategy to develop students' critical-thinking abilities. The literature indicates that for more than 10 years research has been conducted in the US and other countries to investigate how portfolio development provides opportunities for students to tell the story of their work and in doing so helps the students to become more reflective. The portfolio development process encourages students to "think about their own thinking, allowing them to monitor their progress, and though self-evaluation helps them take charge of their learning and encourage ownership, pride, and self-esteem" (Kish, Sheehan, Cole, Struyk, & Kinder, 1997, p. 256). Therefore, as portfolio systems are developed to serve many purposes, the challenge for educators is to focus on the development of student's work and the student's reflection upon that work.

Research conducted in K to 12 classroom settings (Dorn et al., 2004) suggested that portfolios of student artwork could be assessed empirically using quantitative measures that are consistent with the philosophical assumptions of authentic learning. Although several different descriptions of teachers' and students' approaches to portfolios were found in the literature, little is known about specific factors that shape the perceptions of secondary-school visual-arts teachers in Northern California who have facilitated portfolios of student artwork in relationship to how they encourage students

self-reflection and development of critical-thinking skills. Qualitative explorations of these factors may contribute to a growing body of knowledge about portfolios of student artwork and critical-thinking in the field of art education.

 Existing research (Lampert, 2005; Shin, 2002) on critical-thinking and on arts curriculum and instruction has shown "empirical support for the theory that arts curriculum and instruction enhance the disposition to think critically" (Lampert, 2005, p. 226). Few empirical studies on the effectiveness of using portfolios to promote self-reflection and critical-thinking in visual-arts students in grades 9 to12 have emerged in the literature. Further research in the use and effects of portfolios to promote self-reflection and critical thinking in the visual arts is needed to determine whether or not portfolios are an effective way to facilitate students' self-reflection skills and critical-thinking abilities in grades 9 to12. The literature review has demonstrated the need for research that investigates the educational factors that promote the development of portfolios and the need for students to reflect upon their artwork.

 There has been a growing interest in the use of portfolios to measure students' levels of proficiency in the visual arts and to ensure that all students meet grade-level standards. From this examination of the literature, it is evident that more research needs to be conducted to establish whether visual-arts instruction has an effect on critical thinking. More specifically, in this study I searched for evidence of arts curriculum and instructional methods visual-arts teachers developed and implemented at the secondary level that might be attributed to the development of students' disposition to think critically.

CHAPTER III

METHODOLOGY

Restatement of the Problem

The purpose of this study was to obtain an understanding of the perceptions of visual-arts teachers at the secondary level in Northern California who self-reported as having facilitated portfolios of student artwork as an instructional strategy and the exploration of student's work exhibited in his or her portfolios. In California Public Schools, the problem is that explicit portfolio criteria and performance assessment tools to measure students' mastery of the California Content Standards for the Visual Arts in grades 9 to 12 do not exist to gauge the degree that a student has met the content standards or to the degree that a school or school district has met the content standards. Without effective tools and procedures for assessment and accountably, it is difficult to evaluate or assess whether a visual-arts curriculum is aligned and focused in ensuring that all students meet The National Visual Arts Standards (National Art Education Association, 1994) that call for all students to "reflect upon and assess the characteristics and merit of their work" and to uphold The California Content Standards for the Visual Arts, Component Strand: 4.0 *Aesthetic Valuing*, that calls for students to "analyze, assess, and derive meaning from works of art, including his or her own, according to the elements of art, the principles of design, and aesthetic qualities" (Visual and Performing Arts Framework for California Public Schools, Kindergarten Through Grade Twelve, California Department of Education (CDE), 2004, p. 120). Currently, there is no precise criteria or assessment tools for interpreting these types of findings.

This chapter includes descriptions of factors in this study, the pilot study, the research design, the recruitment process, the participants, the sample, the measures for protection of human subjects, the setting, the instrumentation, the methods of data collection, the methods for data analysis, and the researcher's role. All names of the students, teachers, and schools involved in this study are pseudonyms. Individual visual-arts classroom descriptions, document examination, portfolio evaluation, and complete transcripts of the seven interviews with the visual-arts teachers who participated in the study are provided in the Appendixes (M to S). References to course documents (CD) and examples of student work (SW) are indicated in the text by page number of the specific transcript within the raw data of my study.

The Pilot Study

This section contains details of the pilot study. In the Spring of 2007, I conducted a small pilot study and interviewed three visual-arts educators who had facilitated portfolios of student artwork. My intent was to identify themes and patterns using field observations, course documents, and face-to-face interviews with secondary visual-arts educators. Each of the visual-arts teachers I observed and interviewed said that they had implemented portfolios in their courses from 4 to 9 years.

The pilot study data collection consisted of field observations, face-to-face interviews, examining portfolios of student artwork, and collecting course syllabi. The face-to-face interviews were a combination of standardized open-ended questions and informal conversational interviewing depending on the information that emerged from observing a particular setting or from talking to one of the participants. I observed each of the participants in his or her classrooms and conducted one-on-one interviews with the

participants at his or her convenience, during his or her preparation period, at lunch, or after school.

The pilot study was a valuable learning experience. I was able to observe three visual-arts teachers who had implemented portfolios in their visual-arts courses. This experience helped me to understand three different perspectives. Through the dialogue established during the interview process, it was evident that each of the teachers viewed the portfolio as an integral part of the curriculum. Originally, I had developed 20 questions for the interview. After interviewing the first two participants, I narrowed the focus of my study and eliminated 10 interview questions. I also decided that I must conduct the study in the Spring semester when student portfolios were full of artwork that had been created over the course of the school year. In addition, data collected included relevant school documents, such as course descriptions and project handouts.

The 10 interview questions were a combination of standardized open-ended questions and informal conversational interviewing techniques depending on the information that emerged from observing a particular setting or from talking to one of the participants. The 10 basic interview questions did not change much over time, but the informal conversational interviewing techniques changed slightly with each of the participants:

1. When did you start using portfolios?

2. How would you describe the portfolios used in your classes?

3. How do the students select the artwork in their portfolios?

4. How do the students reflect upon their work in the portfolios?

5. How do you encourage your students to reflect upon their artwork in their portfolios?

6. What are some of the benefits presented by the portfolios?

7. Who sees the portfolios?

8. What are some of the challenges presented by the portfolios?

9. May I see some of the portfolios?

10. Is there anything else you would like to tell me that I didn't ask or you haven't had a chance to say?

Research Design

This qualitative case study was designed to collect detailed information about the perceptions of seven secondary-level visual-arts teachers in Northern California who self-reported as having facilitated portfolios of student artwork in grades 9 to12, including the exploration of students' written reflection upon their artwork, and to assess levels of reflection and critical thinking exhibited in the portfolio. One of the key concerns was to understand whether the portfolios provided an opportunity for students to reflect upon their artwork, to acknowledge their accomplishments, and to evaluate their personal artistic growth. The instrument that I developed and used for the analysis of the student's reflections for levels of critical thinking exhibited in the portfolios entitled "The Criteria for Ascertaining Level of Students Reflections Upon Artwork and Critical-Thinking Skills Exhibited in Portfolios" (Appendix A) and "The Coding Sheets" (Appendix B) were based on work of Anderson et al. (2001) Revision of Bloom's Taxonomy of Educational Objectives (RBT), the Feldman (1993) Method, and Ragans' (2000) 4 steps of art criticism. In addition, "The Criteria for Ascertaining Level of Maturation" (Appendix C) developed by Love, McKean, and Gathercoal (2004) was used to assess the current levels of portfolio implementation.

First, the data collection involved a researcher-designed questionnaire to gather basic information from each of the visual-arts teachers interested in participating in the study. Because students often create portfolios in a classroom, I observed the natural settings in which the creation of portfolios takes place: secondary-level visual-arts classrooms. Seven visual-arts teachers, his or her students, daily activities, equipment, and bulletin boards were observed and noted during the visitations at each school site. One-on-one interviews with open-ended questions were conducted and recorded with each of the seven visual-arts teachers at five school sites to gain an understanding of how visual-arts teachers encourage students to reflect upon and assess the characteristics and merit of their artwork exhibited in portfolios in secondary visual-arts courses. The inspection, collection, exploration, and comparison of course-related materials allowed me to identify themes and patterns that emerged from the many different sources of data. Additional data presented in each of the school profiles were gathered from the School Accountability Report Card (SARC), the school website, and in conversation with each of the visual-arts teachers. As Patton (1990) pointed out, "by using a combination of observations, interviewing, and document analysis, the fieldworker is able to use different data sources to validate and cross-check findings" (p. 244).

The case study method was selected to provide me with the opportunity to explore and document not only the breadth of the methods visual-arts teachers employ to encourage students to reflect upon and assess their artwork but also to provide me with the opportunity to examine student portfolios, to determine the current levels of portfolio implementation, and to gather evidence of students' self-reflection and critical-thinking abilities in different settings using a variety of data-collection procedures. It is important

to understand case-specific situations from each of the five different high-school locations; the findings from my study are presented as one case study with two distinct levels.

Participants

The California Art Eduation Association (CAEA) is a professional educational organization for prekindergarten through university educators working in all areas of the visual arts, such as drawing, painting, digital media, weaving and fabrics, ceramics, glass, sculpture, and mixed media. The association is composed of three geographic regions: Northern Area, Central Area, and Southern Area. In 2007, the Northern Area included 170 members with electronic-mail (e-mail) addresses. The CAEA members from the Northern Area were selected as sample group with the written permission of Teresa Cotner, Chair, CAEA Northern Area (Appendix D). Two convenience samples were used; descriptive information about the participants is found in the following sample section.

Recruitment

The visual-arts-teacher participants in my study were recruited from a pool of CAEA members who reside in Northern California. Teresa Cotner, Chair, CAEA Northern Area was contacted by phone and by mail seeking her approval to invite the CAEA Northern Area members to participate in my study. Teresa Cotner provided me with her written approval an e-mail list of 170 Northern Area CAEA members. The CAEA Northern Area members were invited to participate in my study (Appendix E) by e-mail in January 2008. The CAEA members were informed that his or her decision to participate or not participate in the study was voluntary and would have no influence on

his or her present or future relationship with California Art Education Association. CAEA members indicated interest in participating in the study by replying to the e-mail and providing me with his or her name, address, and indicated basic qualifications for this study: (a) California single-subject teaching credential in art, (b) teaching one or more visual-arts courses at the secondary level, and (c) facilitating portfolios of student work.

In January 2008, 170 Northern Area CAEA members were invited to participate in my study by e-mail. Of the 170 e-mails sent, the responses indicated that 13 users were unknown and 19 had fatal errors. Four members of the CAEA responded to my e-mail and expressed an interest in participating in my study. The four visual-arts teachers were mailed a packet that contained a Letter to CAEA Northern California Members Participant Informed Consent Letter (Appendix F), Participant Informed Consent Form (Appendix G), Parental Consent For Research Participation Form (Appendix H), and Research Subjects Bill of Rights (Appendix I). Each of the four high-school principals received a Letter to High School Principals (Appendix J). A follow-up invitation (Appendix K) was sent by e-mail to the Northern Area CAEA members in February 2008. One visual-arts teacher shared the information with a colleague who also participated in the study. One visual-arts teacher was not able to participate in the study because she did not receive permission from her high-school principal. All of the visual-arts teachers and his or her high-school principal gave permission to participate in the study by signing and returning the Participant Informed Consent Letter in the Spring of 2008. In addition, the visual-arts students and their parents gave written permission to participate in this study to gain an understanding of the instructional strategies that

visual-arts teacher implemented with students to develop portfolios and to reflect upon his or her artwork.

In addition, I wrote letters to the visual-arts chairpersons at eight public high schools and six private high schools from San Francisco to San Jose and invited the visual-arts teachers to participate in my study. None of the private-school visual-arts teachers responded to my requests. Ten public high-school visual-arts teachers indicated interest in participating in the study by replying to my requests.

<div style="text-align:center">Sample</div>

Five high schools and seven visual-arts teachers in Northern California participated in this study to gain an understanding of the instructional strategies that visual-arts teacher implemented with students to develop portfolios and to reflect upon their artwork. Nine visual-arts teachers and his or her high-school principal gave permission to participate in the study in the Spring of 2008. The nine visual-arts teachers were interviewed and their visual-arts classes were observed. Two of the visual-arts teachers who I observed and interviewed were not included in the case studies because I did not have the opportunity to examine portfolios of student artwork. Both of the visual-arts teachers who were not included were from suburban high schools. One visual-arts teacher with 32 years of teaching experience provided me with art-project evaluations in a digital format. The other visual-arts teacher in her second year of teaching provided me with over 100 digital images of ceramic projects completed by many of her students over the course of the school year. In both cases, there was neither evidence of students reflecting upon his or her artwork nor writing about his or her artwork. For these reasons, these two teachers were not included in the study.

The sample consisted of seven visual-arts teachers in Northern California employed in varied secondary-school settings surrounding the San Francisco Bay Area. The visual-arts teacher participants were mainly European-American women in their 50s and had been teaching for an average of 20 years. Of the three male participants, one was an Asian-American male and the other two male participants were European-American. Table 3 has individual visual-arts teacher statistics including portfolio maturation level, the number of students who demonstrated their ability to describe their artwork at proficient or advanced levels, and the number of students who demonstrated their ability to critique their artwork at proficient or advanced levels. Individual visual-arts teacher's classroom descriptions, student activities, document examination, portfolio evaluation, and interview transcripts are included in the Appendixes M to S.

Carl Snyder (T1, Appendix M) is in his third year of teaching visual-arts and implementing portfolios at Henry Thoreau High School, a public high school in San Francisco. I observed Mr. Snyder's Art 1-2 class, and I examined portfolios developed by the Art 1-2 students.

Kathy Rose (T2, Appendix N) is the Visual-Arts Department Chairperson at Henry Thoreau High School. Ms. Rose is in her 25th year of teaching visual arts and implementing portfolios. Ms. Rose mentioned that she has been teaching ceramics full time at Henry Thoreau High School for years but due to the construction of the new ceramics studio, Ms. Rose was teaching two-dimensional art this school year. I observed Ms. Rose' s Art 1-2 class, and I examined portfolios developed by the Art 1-2 students.

Table 3

Individual Visual-Arts Teacher Statistics Including Portfolio
Maturation, Description, and Critique Levels (n=7)

Teacher - School	Course Observed	No. of Years Teaching Art	Student Portfolio Maturation Level	No. of Students Description Proficient or Advanced Levels	No. of Students Critique Proficient or Advanced Levels
Carl Snyder - Thoreau	Art 1-2	3	1	0	0
Kathy Rose - Thoreau	Art 1-2	25	1	3	0
Jenny Wren - Pioneer	Photography	13	1	0	0
Ken Tanaka - Pioneer	Advanced Placement Studio Art: 2-D Advanced Art	35	2	0	0
	Art 1-2 Ceramics 1-2		1	0	0
Gloria Gomez - Chavez	Art 1-2	25	2	2	1
Lisa Chan - Marina	3-D Art	14	2	1	3
Ron Parker - Hillcrest	Advanced Art Career Choices	10	2	1	0

Jenny Wren (T3, Appendix O) has been teaching visual arts 13 years and

implementing traditional portfolios 11 years. Ms. Wren currently teaches photography

and ceramics at Pioneer High School, a rural public high school located more than 50

miles from San Francisco. I observed Ms. Wren's Photography 1-2 class, and I examined

portfolios developed by the Photography 1-2 students. Ms. Wren explained that she completed her student teaching assignment with Mr. Tanaka at Pioneer High School.

Ken Tanaka (T4, Appendix P) has been teaching visual arts and implementing portfolios at Pioneer High School for 35 years. Mr. Tanaka currently teaches Ceramics, Art I/Art Appreciation, Art II/Art Appreciation, Advanced Art, and Advanced Placement Studio Art at Pioneer High School. I observed Mr. Tanaka'a ceramics class and the Art 1-2. I examined portfolios developed by the Art 1-2 students. In addition, I observed Mr. Tanaka's combination 2-D Art II- Advanced Placement Studio Art: Two-Dimensional Design class that contained nine students (five boys and four girls) and class. I examined portfolios developed by the 2-D Art II- Advanced Placement Studio Art students.

Gloria Gomez (T5, Appendix Q) has been teaching visual arts for 22 years at Chavez High School, a suburban public high school located more than 10 miles from San Francisco. Ms. Gomez has implemented the International Baccalaureate Visual Art Program for 4 years. Students in the International Baccalaureate Visual Art Program demonstrate growth and commitment to the study of art through Research Work Books and studio art projects. I observed two of Ms. Gomez's International Baccalaureate students' research workbooks (SW 9 and 10) and two-dimensional (2-D) artwork.

Lisa Chan (T6, Appendix R) has been teaching 2-D and three-dimensional (3-D) visual-arts for 14 years and implementing portfolios for 12 years at Marina High School: a suburban public high school located more than 15 miles from San Francisco. I observed Ms. Chan's three-dimensional art class. I examined portfolios developed by the Advanced Placement Studio Art: Two-Dimensional students.

Ron Parker (T7, Appendix S) has been teaching visual arts and implementing portfolios for the last 10 years at Hillcrest High School, a rural public high school located more than 50 miles from San Francisco. In addition to teaching visual-arts, Mr. Parker is the football and golf coach. He explained his philosophy of education that applied in the classroom and on the field, which is to encourage all students to develop his or her strengths. I observed Mr. Parker's Career Choices and Advanced Art classes. I examined portfolios developed by the Advanced Art, Career Choices, and Advanced Placement Studio Art students.

<div align="center">Protection of Human Subjects</div>

Before start of this study, approval for the use of human subjects was obtained from the University of San Francisco. Research is governed by the ethical principles and standards promulgated by the American Psychological Association (2002). All participants were informed of the general purpose of this study during the initial recruitment contact. All participants were informed that his or her participation was voluntary and there were no direct benefits from participating in this study. In addition, participants were informed that they had the right to withdraw form the study at any time and participant's anonymity was protected.

The anticipated benefit of this study was to understand the perceptions of secondary-level visual-arts teachers in California who have facilitated student portfolios in relationship to how the visual-arts teachers develop students' self-reflection and critical-thinking abilities. The visual-arts teachers who participated in this project had an opportunity to express his or her views about portfolios in secondary visual-arts courses and may have realized the importance of developing students' self-reflection and critical-

thinking abilities through portfolios after participating in the study. In addition, the teachers may have appreciated having had the opportunity to provide information and express his or her opinions of both the positive and challenging aspects of portfolio implementation in the visual-arts courses at the secondary level. Participants were free to decline to answer any question he or she did not wish to answer or to stop participation at any time.

The visual-arts-teacher participants were asked to spend approximately 10 minutes of their own time at a location of their choosing to read the e-mail invitation and to respond to a few questions (Appendix E). Visual-arts teachers who participated in the study were asked to allow about one hour for the individual interview and about one hour for the classroom observation. Written parental, student, teacher, and principal permission was obtained in order to observe classrooms, to examine the portfolios, and to photograph examples of student work. Visual-arts teacher participants' names and school names were assigned a pseudonym and remained anonymous during the data analysis of this study. Interviews were tape-recorded with participant permission. The interview audiotapes were transcribed into word documents kept in a locked storage with access by the researcher. After the transcription the original audio files were destroyed. The student participants' writing samples (SW) were digitally photographed, printed, and coded numerically. The student's name on his or her writing sample was covered with a black felt-tipped pen.

<div align="center">Setting</div>

Data collection was conducted at five public secondary-school settings in urban, suburban, and rural areas of Northern California in the Spring of 2008. The case study

approach allowed me to focus on seven secondary-level visual-arts teachers and to observe the participants (teachers and students) in their natural settings (visual-arts classrooms) doing real-life activities (creating art) and provided me opportunities for one-on-one interviews, the inspection of artifacts (student portfolios), and the collection and analysis of pertinent course documents (course descriptions, lesson plans, handouts). Demographic characteristics of individual high schools are summarized in Table 4.

Table 4

Individual High-School Statistics Including Demographic Data (n=5)

High School	Setting	Enrollment	Graduates Completing UC/CSU Admission Requirements	No. of Visual-Arts Teachers
Henry Thoreau	Urban	2,343	56.6%	8
Pioneer	Rural	1,216	16.0%	2
Cesar Chavez	Suburban	1,186	36.6%	3
Marina	Suburban	1,432	50.0%	3
Hillcrest	Rural	401	31.0%	1

Henry Thoreau High School

Two of the eight visual-arts drawing teachers at Henry Thoreau High School, Mr. Snyder and Ms. Rose were visited, observed, and interviewed by me. Henry Thoreau High School, a 2,343-student school established in 1940, is a California Distinguished, fully accredited, and comprehensive public high school located in the West section of San Francisco. Located among two-story single-family homes in a residential neighborhood, the school racial and ethnic mix is African American 7%; American Indian 0.5%; Asian American 63.81%; Filipino American 5%; Hispanic American 11%; Pacific Islander American 0.26%; European American 6.27%; and Multiple or No Response 6.49%. Approximately 23.9% of the student body is identified as English Language Learners or

Non-English Proficient (ELL/NEP). Approximately 10.8% of the student body is

identified as receiving special education services. Approximately 17.5% of the student

body is identified for The Gifted and Talented Education (GATE). Approximately 56.6%

of Thoreau High School graduates completed all courses required for University of

California and California State University (UC/CSU) admission. In 2006-07, 10

Advanced Placement (AP) courses were offered: Computer Science, English, Fine and

Performing Arts, Foreign Language, Mathematics, Science, and Social Science. A total

of 2% of the students were enrolled in AP courses. Students have a 90% + pass rate in AP

Art History.

Henry Thoreau High School operates on a seven-period per day schedule.

Students take six courses with a common lunch period, and each class meets for 55

minutes 4 days a week and 35 minutes one day a week. There are eight visual-arts

teachers at Thoreau offering 14 visual-arts courses that fulfill the one-year graduation

requirement of the district and are approved for entrance to the UC/CSU: Art 1 and 2,

Advanced Art, Art and Architecture, Advanced Art and Architecture, AP Art History,

Ceramics 1 and 2, Advanced Ceramics, Computer Art, Drawing 1 and 2, Advanced

Drawing, Painting 1 and 2, Advanced Painting, Photography 1 and 2, and Advanced

Photography. The Henry Thoreau High School Expected School Wide Learning Results

(ESLRs) clearly indicated:

> ESLR 5. Critical and creative thinkers who:
> Employ higher level thinking skills such as analysis, synthesis,
> application, and evaluation in effective problem solving.
> Use imaginative ideas to create products or performances through the use
> of speaking, reading, writing, listening, and teaching.

Pioneer High School

I visited, observed, and interviewed Ms. Wren and Mr. Tanaka, the visual-arts teachers at Pioneer High School. Pioneer High School, established in 1892, is a fully accredited, comprehensive public high school located in a rural residential community 160 miles north of San Francisco with an enrollment of 1,216 students. Student enrollment by ethnic group: African-American 5.5%; American Indian 6.2%; Asian American 22.5%; Filipino American 0.4%; Hispanic American 6.8%; Pacific Islander American 0.7%; and European American 58.0%. Approximately 12% of the student body is identified as English Language Learners. Approximately 52.4% of the student body is identified as economically disadvantaged. Approximately 9% of the student body is identified as students with disabilities. Approximately 16.0% of Pioneer High-School graduates completed all courses required for UC/CSU admission. In 2005-06, four Advanced Placement (AP) courses were offered: one English, one Fine and Performing Arts, one Science, and two Social Science. A total of 2% of the student body was enrolled in AP courses. Pioneer High School operates on a traditional six-period schedule. Students take six courses with a common lunch period.

There are six visual-arts courses that fulfill the one-year graduation requirement of the district and are approved for entrance to the UC/CSU admission: Ceramics, Photography, Art I/Art Appreciation, Art II/Art Appreciation, Advanced Art, and Advanced Placement Studio Art. Pioneer High School's visual-arts department included three classrooms dedicated to 2-D art, photography, and ceramics. The Pioneer High School Expected School Wide Learning Results (ESLRs) clearly indicated: Critical

Thinkers who "Demonstrate practical application of knowledge Apply complex problem solving processes."

Cesar Chavez High School

Ms. Gloria Gomez, who is one of the three visual-arts teachers at Cesar Chavez High School was visited, observed, and interviewed by me. Cesar Chavez High School, established in 1950, is a fully accredited, comprehensive public high school located in a suburban residential neighborhood 12 south of San Francisco. Cesar Chavez High School offers the International Baccalaureate Program (IB). The student enrollment is 1,186 by ethnic group: African-American 4.3%; American Indian .42%; Asian American 10.46%; Filipino American 6.91%; Hispanic American 32.04%; Pacific Islander American 7.93%; European American 34.82%; and Multiple or No Response 3.12%. Approximately 13% of the student body is identified as English Language Learners. Approximately 16% of the student body is identified as economically disadvantaged. Approximately 12% of the student body is identified as students with disabilities. Approximately 36.6% of Cesar Chavez High School graduates completed all courses required for UC/CSU admission. There are three visual-arts teachers offering nine visual-arts courses that fulfill the one-year graduation requirement of the district and are approved for entrance to the UC/CSU: Art 1-2, Advanced Art 3-8, IB Visual Art Program, Art of Video 1-8, IB Film, Art and Multimedia 1-2, Animation 1-2, Ceramics 1-2, Advanced Ceramics 3-8. The Cesar Chavez High School Expected School Wide Learning Results (ESLRs) clearly indicated: "Students who are becoming…2. Critical Thinkers -Formulate and explain rationale for his or her thinking -Analyze, synthesize, and evaluate information-Apply thinking skills to problem solving and decision-making."

Marina High School

I visited, observed, and interviewed Ms. Lisa Chan, one of the three visual-arts

teachers at Marina High School, established in 1902, is a fully accredited, comprehensive

public high school located in a suburban residential neighborhood 20 miles south of San

Francisco. In 1991, Marina High School was honored as a National Blue Ribbon School

by the United States Department of Education. Currently there are 1,432 students

enrolled at Marina High School, student enrollment by ethnic group: African-American

4.26%; American Indian .28%; Asian American 20.95%; Filipino American 3.7%;

Hispanic American 33.31%; Pacific Islander American 5.38%; European American

30.17%; and Multiple or No Response 1.90%. Approximately 21% of the student body is

identified as English Language Learners. Approximately 11% of the student body is

identified as socioeconomically disadvantaged. Approximately 12% of the student body

is identified as students with disabilities. Approximately 50% of Marina High School

graduates completed all courses required for University of California and California State

University admission. In 2006-2007, eight Advanced Placement (AP) courses were

offered: one Foreign Language, three Mathematics, two Science, and two Social Science.

There are three visual-arts teachers offering five visual-arts courses that fulfill the

one-year graduation requirement of the district and are approved for entrance to the

UC/CSU: 3-D Art 1-2, Drawing 1-2. Drawing Advanced Art 3-4, Art 1-2, and Advanced

Art 3-4. Marina High School operates on an A-B schedule. Mondays and Wednesdays

"A" Schedule courses meet (First Period, Third Period, Fifth Period, and Seventh Period).

Tuesdays and Thursdays "B" Schedule courses meet (Second Period, Fourth Period, and

Sixth Periods). Each Friday students attend periods one through seven. Students share a

common lunch period. Marina High School's (MHS) Expected School Wide Learning

Results indicated MHS

> Will prepare its graduates to be:
> 2. Critical Thinkers who
> Analyze, evaluate and synthesize information
> Develop rational problem solving strategies
> Make appropriate personal decisions
> Read, write and speak reflectively and critically
> Exhibit curiosity and creativity.

Hillcrest High School

Mr. Ron Parker who is the only visual-arts teacher at Hillcrest High School was

visited, observed, and interviewed by me. Hillcrest High School, located in a rural

community 67 miles northeast of San Francisco, is a fully accredited and comprehensive

public high school. The 401 student enrollment by ethnic group is as follows: African-

American 3%; Asian American 2%; Filipino American 1%; Hispanic American 28%;

European American 62%; and Multiple or No Response 4%. Approximately 17% of the

student body is identified as English Language Learners. Approximately 32% of the

student body is identified as economically disadvantaged. Approximately 14% of the

student body is identified as students with disabilities. Approximately 31.1% of Hillcrest

High School graduates completed all courses required for UC/CSU admission. In 2006-

07, three Advanced Placement (AP) courses were offered: Studio Art, English, and Social

Science. Four students submitted AP: 3-D portfolios, and all received the highest score of

five. Four students submitted AP: 2-D portfolios; one student received a score of five,

one student received a score of four, one student received a score of three, and one

student received a score of two.

At Hillcrest High School, all freshmen are required to take a rotational "Career

Pathway" course that includes 6 weeks of 2-D and 3-D Art. Upper-level courses include Art 2, Art 3, and AP Studio Art. Hillcrest High School operates on seven periods per day schedule. Students take seven courses, each class meets for 55 minutes 5 days a week, and students share a common lunch period. I did not observe Expected School Wide Learning Results posted in the visual-arts studios at Hillcrest High School.

Instrumentation

After the pilot study, another key concern emerged; do portfolios provide opportunities for students to reflect upon his or her artwork or to evaluate personal artistic growth? I realized that it was important to determine if visual-arts teachers provided his or her students with opportunities "reflect upon and assess the characteristics and merit of his or her work" (The National Education Association, 1994). Because there is no precise criteria or assessment tools for interpreting these types of findings, I developed "The Criteria for Ascertaining Level of Students Reflections Upon Artwork and Critical-Thinking Skills Exhibited in Portfolios" (Appendix A) and "The Criteria for Ascertaining Level of Students Reflections Upon Artwork and Critical-Thinking Skills Exhibited in Portfolios Coding Sheets" (Appendix B) based on work of Anderson et al. (2001), the Feldman (1993) Method, and Ragans' (2000) method of art criticism for the purpose of recording and coding the levels of evidence of students' critical-thinking abilities exhibited in portfolios for this study.

"The Criteria for Ascertaining Level of Students Reflections Upon Artwork and Critical-Thinking Skills Exhibited in Portfolios" and "The Coding Sheets" were developed as means to classify the students' written reflections upon their individual artwork exhibited in the portfolio and to establish measurements that are valid and

reliable and were based on four established theories: 1. The Taxonomy Table that is a "hierarchy in the sense that the 6 major categories of the cognitive process dimension are presumed to be ordered in terms of increasing complexity" (Anderson et al., 2001, p. 267), 2. The Feldman (1993) Method and Ragans' (2000) art-criticism process, 3. The California Content Standards for the Visual Arts, Component Strand: 4.0 *Aesthetic Valuing*, that calls for students to "analyze, assess, and derive meaning from works of art, including his or her own, according to the elements of art, the principles of design, and aesthetic qualities" (CDE, 2004, p. 120), and 4. The National Visual Arts Standards (1994) Content Standard "5. Reflecting upon and assessing the characteristics and merits of their work and the work of others." The reflective writing exhibited in the portfolio was assessed using the following descriptors to classify the level of students critical-thinking skills exhibited in the portfolio.

"The Criteria for Ascertaining Level of Students Reflections Upon Artwork and Critical-Thinking Skills Exhibited in Portfolios" was designed as means to gauge students' understanding of "rationale for refining and reworking one of his or her own works of art" (CDE, 2004, p. 120) and as a method to identify the six major categories of the Anderson et al. (2001) Taxonomy Table: *Remember, Understand, Apply, Analyze, Evaluate,* and *Create*. Without the "The Criteria for Ascertaining Level of Students Reflections Upon Artwork and Critical-Thinking Skills Exhibited in Portfolios" and "The Coding Sheets" developed as a tool for the purpose of documenting evidence of students' reflection on selected artwork and determining the level of students' critical-thinking abilities, it is difficult to determine objectively how portfolios demonstrate students' critical-thinking abilities.

"The Criteria for Ascertaining Level of Maturation" (Appendix C) developed by Love et al. (2004) was selected because it demonstrated its usefulness for the purpose of defining the five levels of maturation among paper, *e*-Portfolio, and webfolios to ascertain a student's or school's current level of portfolio development. Love et al.'s Levels of Maturation There is a distinction between traditional portfolios (actual pieces of student work), *e*-Portfolios (digital format that resides on a disk or CD-ROM), and webfolios (accessible from the World Wide Web). "The Criteria for Ascertaining Level of Maturation" provided a tool for measuring progress toward webfolio implementation. Clearly defining each level of maturation may help educators and institutions to know where a program resides in its use of portfolios. Without such as tool, it is difficult to determine the developmental stage of a portfolio objectively.

California Lutheran University's (CLU) School of Education (SOE) "has implemented two webfolio systems (a higher education and a K-12 webfolio system) consisting of instructor assignments, learning resources, student artifacts, mentor/faculty feedback and summative assessments, and these are all linked to standards and program goals" (Love, Mc Kean, & Gathercoal, 2007, p. 1). It is important to note that the webfolio system developed by Love et al. has been used as a vehicle for graduate students enrolled in teaching credential programs to showcase their professional growth and development over time on the World Wide Web.

"The Criteria for Ascertaining Level of Maturation" provided a tool for clearly defining each level of maturation. At Level 1-Scrapbook, students who develop portfolios are collecting completed assignments in a course. The student often arranges the items in

a chronological order. There is little deep reflection. The feedback students receive on Level 1 portfolios is limited to comments and grades displayed on the work samples.

At Level 2-Curriculum Vitae, educators or the institution itself has identified a curricular framework that will help students organize his or her portfolios. Deep reflection is possible but not encouraged. There is little feedback on the selection of artifacts from educators.

At Level 3-Curriculum Collaboration Between Student and Faculty, webfolios can be part of either a working or showcase webfolio; the student makes this determination. Work samples are arranged according to a curricular framework, program standards, or both. At Level 3, webfolios allows for students to determine who will have access to view or to comment (his or her instructor, all instructors, employers, or other students). Students have multiple opportunities to redeem his or her work. Educators provide context by adding syllabi, assignments, Internet resources, assessment rubrics, and feedback. The Level 3 webfolios enhances communication between students and educators.

At Level 4-Mentoring Leading to Mastery, webfolios are organized by curricular requirements or standards established by a cadre of educators, but they also allow students opportunities to determine which work samples will be place in the working and the showcase webfolio. Level 4 webfolios allow for students to determine who will have access to view them or comment on them. Students have multiple opportunities to redeem his or her work and to demonstrate mastery of standards or of program goals. Work samples and achievements can either be part of a working or a showcase webfolio. When a student generates a webfolio item, he or she can add a description of the item to be

placed in the webfolio and determine who will have access to view or to comment to the item. Students have the opportunity receive feedback from educators, employers, or peers. At Level 4, employers value the student's showcase webfolio.

At Level 5-Authentic Evidence as the Authoritative Evidence for Assessment, Evaluation, and Reporting, webfolios are organized by curricular requirements or by standards established by a cadre of educators or the institution. Educators can assign standards, department goals, and other descriptors to the student-generated work samples. At Level 5, the student determines the items to place in a curricular context, describes each item, selects who views or comments on each item in his or her webfolio. Students have multiple opportunities to redeem his or her work. The Level 5 webfolio enables students to work toward mastery and to display achievements in a curricular context. The Level 5 webfolio is of high value to the institution because of enhanced communication among students, teachers, and employers.

According to Love et al. (2004) "the distinction among paper, *e*-Portfolio, and webfolio is critical because only the webfolios will support an institution's progress though all five levels" (p. 25). As institutions work through these five levels of implementation and arrive at a point where the use of authentic evidence is preferred to high-stakes testing, " They may find they are involved in one of the greatest revolutions in educational thinking since the commencement of formal schooling" (p. 37).

Study Procedures

The study data were collected in the Spring of 2008 through several instruments employed for the purposes of recording data. The data collection began with a researcher-designed questionnaire (Appendix E) to gather basic information from each

of the potential participants from the CAEA member pool. The small uniquely qualified

sample population each (a) hold a California single-subject teaching credential in art, (b)

teach one or more visual-arts courses at the secondary level, and (c) facilitated portfolios

of student artwork.

Each visual-arts teacher who met the basic qualifications received a cover letter

(Appendix F) that stated the general aims of the study, an Informed Consent Form

(Appendix G), a class set of Parental Consent For Research Participation forms

(Appendix H) that were distributed to students seeking permission from the parents or

legal guardians of minor students involved in this project, Research Subjects' Bill of

Rights (Appendix I), and pre-addressed, stamped, return envelope. Each visual-arts

teacher completed and returned the Informed Consent Form in the envelope provided, as

an indication of his or her decision to participate in the study. Participation in this study

was voluntary. After a visual-arts teacher returned the Informed Consent Form, in the

envelope provided, his or her school principal received a letter (Appendix J) that

described the study's purpose and background, procedures, the risks, benefits, and a copy

of the Parental Consent For Research Participation form. The principal was asked to sign

and return the letter in an envelope provide. After principal's approval was received, each

teacher was contacted and scheduled for one classroom observation and an individual

one-hour interview that was determined by the participating visual-arts teacher in the

Spring of 2008. Visual-arts teacher participants were asked to gather the portfolios from

students who had signed and returned Parental Consent For Research Participation forms

from the parents or legal guardians of minor students involved in this project or signed by

students who are 18 years of age or older potential participants. CAEA Members who did

not respond within 2 weeks were sent a follow-up e-mail (Appendix K), asking for his or her involvement in the study.

Data-Collection Procedures

The data-collection procedures were completed during the months of January through April 2008. Data collection began as soon as I received responses from visual-arts teachers interested in participating in my study. I coordinated all of the classroom observations, teacher interviews, audio recording, and follow-up e-mails with the teachers. The first level of data collection consisted of developing the Document Inventory Guide (Appendix L) to organize and keep track of the many forms of data collected. As I set up dates with the visual-arts teachers, researched each high school, printed maps to each school site, observed visual-arts classrooms, interviewed visual-arts teachers, collected course documents, examined portfolios, evaluated the portfolios, photographed, printed, and numbered the students written reflections upon his or her artwork, I kept track of the events. The sources of raw data as illustrated in the Document Inventory Sheet were coded (I: Interview, D: Document, P: Portfolio, O: Observation) and cataloged to establish the construct validity and reliability of the evidence. As each interview with a visual-arts teacher was transcribed into a word-processed document, I e-mailed the word-processed transcript to each participant in order to confirm that the transcriptions were accurate. Each participant confirmed that the transcription was accurate. All names of the teachers and high schools involved in this study were changed to pseudonyms. Complete transcripts of the seven interviews with the visual-arts teachers are provided in the Appendixes M to S. References to course documents (CD 1 to 34) are

indicated in the text by page number of the specific transcript within the raw data of my study.

References to examples of student work (SW 1 to 15) are indicated in the text by page number of the specific transcript within the raw data of my study. In order to increase the reliability of observational evidence, the students written reflections directly observed in the portfolio were digitally photographed, printed, examined, and analyzed. Three sets of students written reflections (SW 1 to 15) upon his or her artwork were printed and numbered. First, I evaluated the students written reflections utilizing an evaluative instrument "The Criteria for Ascertaining Level of Student Reflections Upon His or Her Artwork and Critical-Thinking Skills Exhibited in Portfolios" to determine what level of reflection students demonstrated in his or her ability to describe and critique his or her artwork. Each written reflection upon the artwork exhibited in the portfolio was first assessed to determine the level of students ability to describe the selected piece of artwork that included the size of the artwork, the medium used, the process or the techniques used to create the artwork, the subject matter, or the student identified and one or more of the elements of art exhibited in his or her work of art. When a key word or art concept appeared in the student's reflective writing, it was underlined with a highlighter and recorded on the corresponding numbered description section of "The Coding Sheet." I cited evidence on the description-coding sheet and applied five criteria from the lowest to the highest level. Second, I evaluated the student's ability to critique his or her artwork. Each students written reflection upon the student artwork exhibited in the portfolio was assessed to determine the level of students' ability to critique his or her artwork that included acceptable elements of his or her performance, unacceptable

elements of his or her performance, suggested changes for future work using the one or more of the elements of art or the principles of design to express his or her observations or opinions. When the student's writing exhibited acceptable elements of his or her performance, unacceptable elements of his or her performance, suggested changes, or key concepts were exhibited in student's reflective writing, the words or key concepts were underlined with a different color highlighter and recorded on the numbered critique section of "The Coding Sheet." I cited evidence on the critique coding sheet and applied five criteria from the lowest to the highest level. Each student received two scores, one for the description of his or her artwork and one for the critique of his or her artwork.

In order to help establish the construct validity and reliability of the case study evidence, two independent judges were chosen to assess the student writings. Each independent judge received one hour of instruction that included two demonstrations. The first demonstration included citing key words for the description of artwork as evidence on the written reflection paper, entering the evidence on "The Coding Sheets," and application of the description scoring methods from the lowest to the highest level (1 to 5). The second demonstration included underlining key words for the critique of the artwork, coding, and application of the critique scoring methods from the lowest to the highest level. Independent judge one was a National Board Certificated Visual-Arts teacher with over 20 years of experience in a public high school 41 miles south of San Francisco. Independent judge two was a visual-arts teacher with over 20 years of experience in a private high school in San Francisco. Each judge was instructed to apply the same criteria to evaluate each writing sample independently. Each judge assigned two scores, one for the description of artwork and one for the critique of the artwork. The

three scores were measured to determine interjudge reliability. From the reliability analysis in terms of agreement levels, 11/30 were in perfect agreement, 13/30 had one discrepancy, and 6/30 had two discrepancies. There was general inconsistency of interpretation. An acceptable level of reproducibility (interrater reliability) was not established. There was general inconsistency of observations, labeling, and interpretation among the two judges and myself. If the three scores were not in agreement, I reexamined the student's written reflection and reexamined the evidence sited on the coding sheet by each of the judges in order to determine why the student writing samples scores were not in perfect agreement. In most cases, one of the judges cited evidence from the student's written reflection that was overlooked and not cited by another judge. The score was used as an overall rating in each section to determine what level students demonstrated in his or her ability to describe artwork and to determine what level students demonstrated in his or her ability to critique his or her artwork.

<div align="center">Restatement of the Research Questions</div>

The two research questions for this dissertation that were developed before data were collected are given in this section.

1. How do visual-arts teachers encourage students to reflect upon and assess the characteristics and merit of his or her artwork exhibited in portfolios in secondary visual-arts courses? This question was addressed through the interpretation of the interview data from the participants resulting from this question being asked directly of the participants, through the examination of course documents, through the examination of students written reflections, and through the examination and analysis of student portfolios using the "The Criteria for Ascertaining Level of Maturation."

2.   To what extent do the portfolios contain evidence of students' self-reflection and critical-thinking abilities? This question was addressed through the examination and analysis of student's written reflections upon his or her artwork exhibited in the portfolios using "The Criteria for Ascertaining Level of Students Reflections Upon Artwork and Critical-Thinking Skills Exhibited in Portfolios" and "The Coding Sheets." "The Criteria for Ascertaining Level of Maturation" helped to determine the developmental stage of a portfolio objectively.

Data Analysis

The main purpose of the classroom observation, teacher interview, document collection, portfolio examination, and evaluation of students' reflective writing was to gain an understanding of the instructional strategies that visual-arts teacher utilized to encourage students to reflect upon his or her artwork exhibited in his or her portfolios. The first level of data analysis consisted of developing the Document Inventory Sheet to organize and analyze the many forms of data. The teacher initials and school initials were listed in the order of his or her site visitations. Each source of raw data were coded (I: Interview, D: Document, P: Portfolio, O: Observation) and cataloged to establish the construct validity and reliability of the evidence. The Document Inventory Sheet provided a reference of what had been completed and what needed to be completed. As data was recorded, themes began to emerge from the data.

The student writing samples (SW 1 to 15) were the primary data in this qualitative study of students' written reflections upon his or her artwork exhibited in the portfolios. The second level of data analysis consisted of reading and rereading the students' written reflections exhibited in the portfolios. Although the students' written reflections could be

observed directly in the portfolio, each written reflection was photographed digitally and later retrieved, printed, examined, analyzed, numbered, and cataloged to establish the construct validity and reliability of the case study evidence. To address the research question-- To what extent do the portfolios contain evidence of students' self-reflection and critical-thinking abilities, two processes occurred-- the written reflections were evaluated for levels of critical thinking as measured by "The Criteria for Ascertaining Level of Students Reflections Upon Artwork and Critical-Thinking Skills Exhibited in Portfolios." "The Coding Sheets" was a useful tool for noting evidence of key words or concepts exhibited in students' writing. First, I ascertained whether or not and to what level students were able to reflect and demonstrate critical thinking in the written reflections exhibited in his or her portfolio. Two independent judges verified the results. The portfolios also were examined to address the level of portfolio maturation. "The Criteria for Ascertaining Level of Maturation" developed by Love et al. (2004) provided clear stages to address the level of portfolio maturation.

The third level of data analysis consisted of reading the course documents (CD 1 to 34) provided by the visual-arts teachers. Each of the course documents was examined, numbered, and cataloged to establish the construct validity and reliability of the case-study evidence. This method of data analysis provided an opportunity to look at different methods and instructional strategies the visual-arts teachers utilized to encourage students to reflect upon his or her artwork and to address the research question: How do visual-arts teachers encourage students to reflect upon and assess the characteristics and merit of his or her artwork exhibited in portfolios in secondary visual-arts courses? Data was reported in table, graphic, and narrative forms. I developed a visual diagram to

represent the forms of data gathered in my study at 5 school sites, with 7 of visual-arts teachers, 44 portfolios, and 15 written reflections exhibited in portfolios as illustrated in Figure 3.
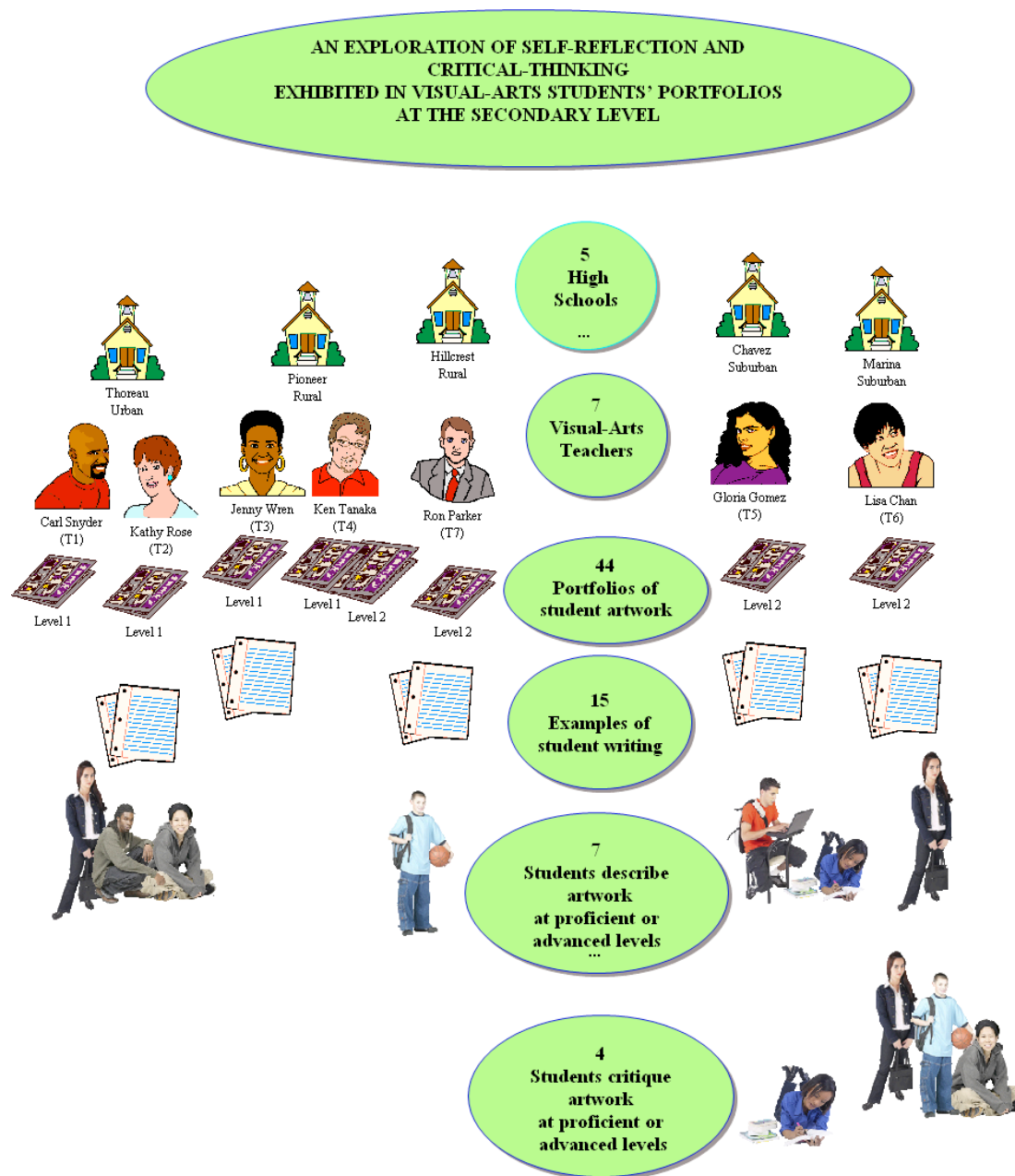
Figure 3. Visual Data Analysis Information.

The fourth level of data analysis consisted of rereading the transcript while listening to each audio interview with the visual-arts teachers for evidence of interpretive

accuracy with my research questions in mind and taking note of key words or concepts. This method of data analysis provided an opportunity to look at the transcription and listen to the teacher's perspective for evidence of how the teacher encouraged his or her students to reflect upon his or her artwork and to address the research question: How do visual-arts teachers encourage students to reflect upon and assess the characteristics and merit of his or her artwork exhibited in portfolios in secondary visual-arts courses. The findings highlight the role of the teacher in promoting students reflections upon his or her artwork.

Recognizing that all methods, such as surveys, observations, interviews, and document data, have limitations, multiple forms of data sources, drawing on all possibilities were employed with the primary intent of developing themes and patterns from the data. The fifth level of data analysis consisted of reexamining the data with my research questions in mind and taking note of key words or concepts, identifying themes, and supporting data.

In the final state of analysis, all of the sources of evidence were reviewed and analyzed together so that the case study's findings were based on the convergence of information from qualitative and quantitative sources to increase the reliability and validity of the evidence. The interview data were corroborated with other sources of evidence (direct observation, course documentation, and physical artifacts). In addition, levels of written reflections and of critical thinking were confirmed with two independent judges, with evidence from the course documents, and from the information gleaned from teacher interviews.

The Researcher's Role

The researcher is currently a full-time visual-arts teacher in a suburban public high school located 25 miles South of San Francisco. My professional experience as visual-arts teacher for more than 25 years and as a Visual and Performing Arts Department Chairperson for more than 15 years has permitted me to gain valuable insight into public and private education. In this capacity, I have worked with a multitude of young men and women representing the diverse ethnic heritage of the San Francisco Bay area. I have designed and implemented various curricula aimed at enhancing the creative skills of my students, while integrating writing skills, utilizing technology, and aligning instruction with the California Content Standards for the Visual Arts.

I strive to provide my students with greater opportunities to recognize the similarities in diverse cultural groups through art. Through viewing a variety of art forms and creating personal art forms, students develop self-expression and integrate concepts from other disciplines. I have encouraged my students to express his or her thoughts in a variety of media: traditional and electronic. This is in essence why I teach, that is to empower individuals to become all that they can given his or her particular gifts.

My understanding of art and education has allowed me the opportunity to be a four-time assessor for the National Board For Professional Teaching Standards and a member of the California Subject Examinations for Teachers Art Subject Matter Advisory Panel. In addition, I completed the Bay Area California Arts Project Leadership Institute, which strengthened my subject-matter knowledge of Dance, Theatre, Music, and Visual Arts as well as interdisciplinary curriculum. I have twice completed training in Studio Art at the International Advanced Placement (AP) Summer Institute sponsored

by The College Board Western Regional Office. In 2007, I was a Western Association of Schools and Colleges (WASC) visiting committee member focusing on Standards-based Student Learning: Assessment and Accountability, which allowed me to look beyond the arts and become more familiar with school-wide issues.

I recently have completed coursework in a doctoral education program with a focus on learning and instruction. My perception of learning has been shaped by both formal and informal academic experiences. Due to these experiences, I may bring certain biases to this study. Although every effort will be made to control for these biases, there remains the potential that these biases will influence the analysis and interpretation of the data collected. Explanation of possible researcher biases will be communicated as honestly as possible. My experience as a visual-arts teacher has provided me with a background that may not be dissimilar to those who were recruited for this study. I have taught a variety of visual-arts courses at the secondary level: art, art and multimedia, ceramics, crafts, graphic design, photography, and yearbook. I anticipate some basic understanding of the teachers' experiences with portfolios. My position within this inquiry was that of a nonparticipant researcher-observer.

CHAPTER IV

RESULTS

Introduction

The purpose of this study was to explore of the perceptions of visual-arts teachers who self-reported that they have facilitated portfolios in secondary-school visual-arts courses. Seven visual-arts teachers from five high schools in Northern California participated in the study to gain an understanding of the instructional strategies that visual-arts teacher utilized to encourage students to reflect upon their artwork. I observed visual-arts classrooms, interviewed visual-arts teachers, examined course documents, viewed portfolios, and evaluated written reflections exhibited in the portfolio in order to determine what level of reflection students demonstrated and what was the stage of portfolio maturation. Multiple forms of data sources from the study support the findings through the interviews, observations, and documents; factors that encouraged students to reflect upon the artwork exhibited in their portfolio emerged. Throughout Chapter IV, visual-arts teachers (T1 to T7) are identified in the text by a pseudonym. The course documents (CD 1 to 34) and student's work (SW1 to 15) are identified by a page number in the raw data. The levels of reflection and indices of critical thinking were confirmed with evidence gathered from the student writing samples exhibited in the portfolios. This chapter includes the setting, how the research questions were addressed, how the data were analyzed, and the findings. The findings are presented as one case study with two portfolio maturation levels that examines the visual-arts teachers' instructional strategies, instructional materials, student work, portfolio implementation and maturation, students' reflections upon artwork, and the themes that emerged.

The study was conducted at five public secondary-school settings in urban, suburban, and rural areas of Northern California in the Spring of 2008. The case-study approach allowed me to focus on seven secondary-level visual-arts teachers and to observe the participants (teachers and students) in their natural settings (visual-arts classrooms) doing real-life activities (creating art) and provided me opportunities for one-on-one interviews, the inspection of artifacts (student portfolios), and the collection and analysis of pertinent course documents (course descriptions, lesson plans, handouts). The triangulation of data from the classroom observations, teacher interviews, course documents, examination of portfolios, and analysis of the students' work contributed to the accuracy and creditability of this study's findings.

Two of the visual-arts teachers who I had observed and interviewed were not included in the case studies. In neither instance, did I have the opportunity to examine portfolios of students' artwork, and in neither instance did evidence exist of students reflecting upon and writing about their artwork. For these reasons, the two teachers were not included in the study. The seven visual-arts teachers included in the study each expressed in interviews how his or her students reflected upon the artwork and provided portfolios of student work. Six of the seven visual-arts teachers provided examples of instructional materials. Excerpts from the interview transcripts (transcripts from the interviews are included in Appendixes) are provided that support the findings in each section.

Research Question 1

How do visual-arts teachers encourage students to reflect upon and assess the

characteristics and merit of their artwork exhibited in portfolios in secondary school visual-arts courses? The first research question is concerned with how visual-arts teachers encouraged students to reflect upon and assess the characteristics and merit of their artwork exhibited in portfolios in secondary-school visual-arts courses. This question was addressed in three ways. First, I observed the visual-arts teacher and his or her students in the visual-arts classroom to develop an understanding of the secondary visual-arts course, the classroom environment, and portfolio development. Second, I interviewed seven visual-arts teachers during his or her preparation period to gain an understanding of his or her perspective of portfolios. Of particular interest were factors that not only contributed to the development of student art-content knowledge and creative skills but also contributed to students' self-reflection and critical-thinking abilities. The 10 semistructured interview questions with the seven visual-arts teachers provided data from the visual-arts teachers' perspective and the educational factors they perceived promoted students' self-reflection upon their artwork. The interviews with the seven visual-arts teachers averaged 15 minutes in length (range 10 minutes to 27 minutes). The visual-arts teachers reported a total of 125 years of teaching experience, the average years of experience was 18 years of teaching (range third-year teacher to 35 years experience).

Third, I examined the instructional materials provided by the visual-arts teachers that included questions about the students' artwork that required students to respond in written form. For the purpose of this study, Anderson et al.'s (2001) Taxonomy Table served as the foundational basis to help identify instructional materials and the student reflective writing samples that ranged from less complex cognitive process categories: *Remember, Understand,* and *Apply* to more complex cognitive processes of *Analyze,*

Evaluate, and *Create* as described in Table 5. The results are presented in terms of the number of visual-arts teacher participants and the number of student writing samples. The visual-arts teacher instructional and assessment materials and the student writing samples examined provided evidence that ranged from less complex cognitive process to more complex cognitive processes. The visual-arts teacher's role was critical; the depth of the students' learning was linked directly to the visual-arts teacher's selection of instructional materials and time allotted for students to reflect and write about their artwork. The visual-arts teachers who developed formal methods for his or her students to reflect upon their artwork provided evidence that ranged the continuum of cognitive processes, and allotted instructional minutes for students to write about their artwork as an instructional strategy were able to develop students' critical-thinking abilities at higher levels as measured by "The Criteria for Ascertaining Level of Students Reflections Upon Artwork and Critical-Thinking" (Appendix A).

Remember

During the course of the interview, each of the seven visual-arts teachers claimed that they provided opportunities for their students to reflect upon their artwork. Six of the seven visual-arts teachers gave me copies of instructional or assessment materials. Of the assessment materials reviewed, four of the visual-arts teachers gave students instructional or assessment materials where they requested that the students describe their artwork. The instructional or assessment materials provided evidence of the Taxonomy Table category: *Remember*. According Anderson et al. (2001) to provide factual knowledge requires less complex cognitive processes. Thirteen of the 15 written student reflections demonstrated the students' ability to describe their artwork.

Table 5

Results of Qualitative Analysis: The Cognitive Process Dimension,
Teachers' Instructional Materials, and Students' Written Reflections

The Cognitive Process Dimension Anderson et al. (2001)	Teachers' Instructional Materials (n=7, 100%)	Students' Written Reflection (n=15, 100%)
Remember	Teachers' instructional materials required students to select an example of artwork in his or her portfolio, describe the subject matter (figures, animals, objects, etc.) and the medium. (n= 4, 57%)	The student identified an example of artwork in his or her portfolio, described the subject matter (figures, animals, objects, etc.), and the medium. (n=13, 87%)
Understand	Teachers' instructional materials required students to identify and described one or more of the elements of art (line, shape, form, color, value, texture, or space) or the principles of design (balance, unity, contrast, emphasis, pattern, rhythm and movement) exhibited in his or her work of art. (n=5, 71%)	The student identified and described one or more of the elements of art (line, shape, form, color, value, texture, or space) or the principles of design (balance, unity, contrast, emphasis, pattern, rhythm and movement) exhibited in his or her work of art. (n=14, 93%)
Apply	Teachers' instructional materials required students to describe the processes or techniques used to create his or her artwork. (n=5, 71%)	The student described the processes or techniques used to create his or her artwork. (n=10, 67%)
Analyze	Teachers' instructional materials required students to describe how the elements and principles were used to create the content of the art and express a mood or theme in his or her artwork. (n= 0)	The student identified and described how the elements and principles were used to create the content of the art and express a mood or theme in his or her artwork. (n=2, 13%)

Table 5 continues

Table 5 Continued

Results of Qualitative Analysis: The Cognitive Process Dimension,
Teachers' Instructional Materials, and Students' Written Reflections

The Cognitive Process Dimension Anderson et al. (2001)	Teachers' Instructional Materials (n=7, 100%)	Students' Written Reflection (n=15, 100%)
Evaluate	Teachers' instructional materials required students to describe acceptable and unacceptable elements of his or her performance. (n=5, 71%)	The student described acceptable and unacceptable elements of his or her performance. (n=11, 73%)
Create	Teachers' instructional materials required students to apply artistic processes and create an original work of art. (n=5, 71%)	The student applied artistic processes and created an original work of art. (n=15, 100%)

Understand

Five of the visual-arts teachers gave students instructional or assessment materials
that required students to identify an element of art exhibited in their artwork. The
materials provided evidence of the category: *Understand,* includes conceptual
knowledge. *Understand* is believed to be more cognitively complex than *Remember*
(Anderson et al., 2001). Fourteen of the 15 written reflections demonstrated that the
students' could identify one or more elements of art exhibited in their artwork.

Apply

Five of the visual-arts teacher's gave students instructional or assessment
materials that had students describe the process of creating their artwork. The materials
provided evidence of the category: *Apply* or to provide procedural knowledge. *Apply* is
believed to be more cognitively complex than *Understand* (Anderson et al., 2001). Ten of

the 15 written reflections demonstrated the students' ability to describe the process of creating their artwork.

Analyze

There was no evidence to support that the visual-arts teacher's instructional or assessment materials that required students to analyze or describe how the elements of art and the principles of design were used to create the content of the art, to develop a mood, or to express the theme of their artwork as evidence of the category: *Analyze*, which is metacognitive knowledge and is a more complex cognitive process (Anderson et al., 2001). Even though there was a lack of visual-arts teacher's instructional materials that required students to analyze their artwork, many of the written reflections demonstrated the students' ability to express what had inspired their artwork. Two of the 15 written reflections demonstrated the students' ability to analyze and describe how the elements of art and the principles of design were used to create the content of the art, mood, or theme of their artwork.

 Evaluate

Five of the visual-arts teacher's gave students instructional or assessment materials that had students evaluate the strengths and weaknesses of their artwork. The materials provided evidence of the category: *Evaluate* or to provide metacognitive knowledge that is a more complex cognitive process (Anderson et al., 2001). Eleven of the 15 written reflections demonstrated the students' ability to discuss the strengths or weaknesses of their artwork.

Create

Seven of the visual-arts teacher's gave students instructional materials or wrote the assignment directions on the board that requested students to apply artistic processes and create a work of art. The materials provided evidence of the category: *Create* or to provide metacognitive knowledge that is a more complex cognitive process (Anderson et al., 2001). The 15 portfolios provided demonstrated the students' ability to apply artistic processes and create artwork.

<div align="center">Criteria for Ascertaining Level of Maturation</div>

"The Criteria for Ascertaining Level of Maturation" (Appendix C) developed by Love, McKean, and Gathercoal (2004) provided the framework for the purpose of defining a student's or school's current level of portfolio development. For the purpose of this study, applying the five levels of portfolio maturation:

> Level 1—Scrapbook
> Level 2—Curriculum Vitae
> Level 3—Curriculum Collaboration Between Student and Faculty
> Level 4—Mentoring Leading to Mastery
> Level 5—Authentic Evidence as the Authoritative Evidence for Assessment, Evaluation, and Reporting (Love et al., 2004, p. 26)

At Portfolio Maturation Level 1-Scrapbook (Level 1), students developed portfolios and collected completed assignments. The student often arranged the items in a chronological order. There was little deep reflection. Students had no schema to guide the portfolio organization and artifact selection as measured by the portfolio criteria.

At Portfolio Maturation Level 2-Curriculum Vitae (Level 2), educators or the institution itself have identified a curricular framework that help students organize their portfolios. Deep reflection is possible but not encouraged. There was little feedback on the selection of artifacts from educators.

Table 6

Portfolio Maturation Level Given for Each School and Teacher

School-Teacher	Portfolio Maturation Level
HTHS-T1	1
HTHS-T2	1
PHS-T3	1
PHS-T4	1
PHS-T4	2
CCHS-T5	2
MHS-T6	2
HHS-T7	2

Of the portfolios I examined, there was evidence to support that the majority of first-year visual-arts students at each of the four high schools developed portfolios as a folder of assignments completed in the visual-arts course at Portfolio Maturation Level 1-Scrapbook; students had no schema that guided the organization and artifact selection as measured by "The Criteria for Ascertaining Level of Maturation." I observed that one teacher (Mr. Tanaka, T4) encouraged his beginning art classes to develop portfolios at Portfolio Maturation Level 1 and he encouraged his advanced art students to develop portfolios to meet the Advanced Placement Studio Art requirements at Portfolio Maturation Level 2. For these reasons, Mr. Tanaka (T4) is included in Portfolio Maturation Level 1 and 2. Table 6 provides individual data and total indicators identifying the level of portfolio maturation by school and teacher.

The data gathered were divided into two separate levels to identify the current level of portfolio implementation. For the portfolios at Level 1- Scrapbook, students had no schema that guided the organization and artifact selection. Portfolio Maturation Level 1 (Level 1) represents students who developed portfolios by collecting completed

assignments in a folder. The student often arranged the items in a chronological order. There was little deep reflection. The feedback students received was limited to comments and grades displayed on the work samples. Portfolio Maturation Level 1 represents four visual-arts teachers from two different Northern California high-schools perspectives on portfolios (see Table 4 in Chapter III). Two of the visual-arts teachers teach in the same urban high school, whereas the other two visual-arts teachers teach in the same rural high school.

The portfolios at Level 2-Curriulum Vitae, student work was guided. Portfolio Maturation Level 2 (Level 2) represents the four visual-arts teachers and student portfolios where a framework or criteria for students organize their portfolios was implemented. Deep reflection was possible but not encouraged. The student may describe each item and how it meets a standard or program requirement. There was little feedback on the selection of artifacts from educators. Of the Level 2 portfolios examined, there was evidence to support that three of the visual-arts teachers provided his or her students with opportunities to describe and critique the artwork exhibited in his or her portfolio in written form (see Table 4 in Chapter III). Of the portfolios examined, there was evidence to support that students were influenced by his or her teacher's instructional methods and materials that directly influenced the students' ability to reflect upon their artwork, to describe the artwork, or to critique the artwork exhibited in their portfolio in written form. Of the Level 2 portfolios examined, there was evidence to support that the students at each of the four high schools developed portfolios to satisfy external assessment purposes, the Chavez students develop IB portfolios, whereas some of the students at Pioneer, Marina, and Hillcrest High School students were encouraged to develop AP

portfolios. The majority of portfolios of were at low levels of maturation as measured by

"The Criteria for Ascertaining Level of Maturation." There was no evidence of *e*-

Portfolios or webfolios observed.

<div align="center">Portfolio Maturation Level 1-Scrapbook</div>

Level 1 portfolios are represented by four visual-arts teachers' from two different

Northern California high schools. Mr. Snyder (T1) and Ms. Rose (T2) teach at Thoreau

High School, a 2,343-student school located in San Francisco. Mr. Tanaka (T4) and Ms.

Wren (T3) teach at Pioneer High School, located in a rural residential community 160

miles north of San Francisco with an enrollment of 1,216 students. Each visual-classroom

observed was described in Appendixes M to S. Through the observations and interviews

with the four visual-arts teachers, I discovered factors that promoted students' self-

reflection and critical-thinking abilities. Excerpts from the interview transcripts and

course documents are provided that support the findings. Two of the interview questions

addressed factors that promoted students' self-reflection and critical-thinking abilities:

How do the students reflect upon his or her work in the portfolios?

How do you encourage your students to reflect upon his or her artwork in his or her portfolios?

This section focuses on the instructional strategies, the instructional materials, and

the portfolio maturation of the visual-arts teachers at Portfolio Maturation Level 1-

Scrapbook.

Instructional Strategies

Each of the of the four visual-arts teachers at Level 1 discussed how his or her

students to reflected upon their artwork. Ms. Rose (T2, Appendix N) and Ms. Wren (T3,

Appendix O) explained the instructional methods they utilized with students to reflect

upon the artwork. Ms. Rose stated

> They have a set of questions that I choose and that they have to answer, and so
> they have time to work on them, and maybe sometimes they're looking at two or
> three drawings in the portfolio and sometimes they're looking at the whole
> portfolio, but I try to give them maybe an assignment where they're looking at
> one drawing and they're writing an assessment of it.

> Ms. Wren explained how her students reflected, "They have actual written,

reflective writing, comparison, and contrast." Mr. Tanaka (T4, Appendix P) discussed the

instructional strategies that he had implemented:

> I use a worksheet, and on the worksheet it goes over a description, an analysis,
> interpretation, and then a judgment, and then I always add new things, so I put
> connections and relations and applications, how to connect stuff… art making
> history

> I asked Mr. Tanaka, "Do students write their responses down?" Mr. Tanaka

replied, "No, they circle." He then added, "Circle and write." I observed Mr. Tanaka

reading each section of the worksheet (CD 7) to his sixth-period art students and telling

the students what they should be circling or filling in on the worksheet as he had

described in the interview. For example, the first item on the worksheet "Description, title

of the work and the artist name:" Mr. Tanaka told the students to write in "Positive and

Negative" and write his or her name in the space. "The medium:" Mr. Tanaka instructed

his students to write "watercolor" in the space provided on the worksheet.

> Two instructional strategies emerged from the data to develop students' self-

reflection and critical-thinking abilities. The four visual-arts teachers indicated that they

monitored students' judgments about the quality and success of their artwork using

formal and informal approaches. Informal methods appeared as questions and group

discussions, students responding to their own two-dimensional or three-dimensional

works of art or that of other students. Formal methods appeared as questions on handout to be answered by the students in written form responding to their own two-dimensional or three-dimensional works of art at the end of a project or the end of the semester.

Instructional Materials

I was particularly interested in identifying course documents or instructional materials that encouraged students' self-reflection of their artwork. Documents were examined for evidence of instructional materials that required students to describe their work of art (the size of the artwork, the medium used, the processes or techniques used to create the artwork, and the subject matter, that is, figures, animals, objects, etc. or to critique their work using the vocabulary of the visual arts, the elements of art, and the principles of design). Upon inspection of the documents provided by three of the visual-arts teachers, the content and teaching materials ranged from less complex cognitive process to more complex cognitive processes as measured by the reflection criteria.

Mr. Snyder (T1, Appendix M) discussed his instructional strategies but did not provide evidence of course documents, instructional materials, or student writings. Ms. Wren (T3) provided copies of instructional with small spaces for the students to write in their answers that encouraged the students to reflect upon their artwork and to discuss the technical processes and problems, strengths, and weaknesses encountered. The Line of Sight (CD 15) handout included six questions, three of the questions encouraged students to reflect upon his or her artwork: 4. What kinds of problems did you have shooting this assignment? 5. Did your "work" turn out as you planned? 6. Can you honestly say you can take pride in it, why or why not? The Out of Place (CD 16) assignment Question 2. "Would you consider this photo successful, and why?" The teacher warns, "A simple yes/

no will <u>not</u> do" and encouraged students to reflect upon their artwork. Upon inspection of the photography course documents (CD 8 to 19) that Ms. Wren (T3) provided, it was obvious that she gave her students instructional materials and multiple opportunities to reflect upon their artwork. The photography course documents that I examined did not include any teacher supplied questions requiring students to describe their photographs or to critique their photographs that would indicate an understanding of art using the vocabulary of the visual arts to express observations. The formal instructional materials and examples of student work provided evidence of students describing and critiquing his or her artwork at basic and below levels as measured by the reflection criteria. The content and teaching materials were at the lower range of the Anderson et al.'s (2001) continuum, resulting in students' written reflections at lower levels of critical-thinking abilities as measured by the reflection criteria.

In contrast, Ms. Rose (T2) developed and implemented instructional materials (CD 1 to 5) that encouraged her students to reflect upon their artwork in their portfolio, identify artwork in their portfolio, use the language of art, and describe individual strengths and weaknesses in paragraph form. The "Guidelines for Describing an Artwork" (CD 1) was copied from the teacher edition of *The Visual Experience* (Hobbs, Salome, & Vieth, 1996, p. T-24), which provided students with a list to be used to describe an artwork that included

1. Label information: Artist, title, and date of work. Medium. Processes used to make it. Size of artwork. Country where it was created.
2. Subject Matter:
   a. Figures, animals, objects (trees, sun, clouds, grass, birds, machines, buildings, etc.). If there are not recognizable object in the artwork, describe art elements: line, color, value, shape, textures, space, and movement.

Ms. Rose (T2) gave her students instructional materials and multiple opportunities to reflect upon their artwork. The Advanced Art Final Project (CD 3) handout instructed the students to review the work that they had completed, choose one of the pieces, and discuss it in a typed document, "using the formal framework outlined in" *Looking At Art, Talking About Art, Thinking About Art* taken from the work of aestheticians, Harry Broudy and Thomas Green (CD 4). The 4-part framework starts with the identification of the sensory properties (the elements of art) of the work; followed by the formal properties (the principles of art); the technical properties that have to do with the medium, tools, and equipment that are evident in the work; and ends with the expressive properties that have to do with the meaning or feeling of the work. Ms. Rose's instructional materials were aligned with the first step of Feldman's (1993) Model and Ragans' (2000) method for art criticism involving description and instructional materials for students to critique artwork that ranged from less complex cognitive process to more complex cognitive processes of the Taxonomy Table: *Remember, Understand, Apply, Analyze, Evaluate,* and *Create* (Anderson et al., 2001).

Ms. Rose's Fall of 2007 Drawing 1 Semester Final Exam (CD 5) included an opportunity for students to choose two drawings from a list in the portfolio and to compare the second drawing with the previous drawing. Students were instructed to describe "your growth as an artist by comparing them" and to "describe your strengths and weaknesses" in paragraph form. Ms. Rose (T2) provided 17 original final examinations papers. Upon inspection of these documents, there was evidence of instructional materials that Ms. Rose (T2) developed and implemented where her students had multiple opportunities to reflect upon their artwork, to identify artwork in their

portfolio, to use the language of art to discuss the technical properties that were evident in the work, and to describe individual strengths and weaknesses in paragraph form. From the course documents and student work observed, Ms. Rose provided course documents that provided a framework for students to describe and to critique their artwork. Three of Ms. Rose students described his or her artwork at a proficient level as measured by the reflection criteria. The content and teaching materials spanned the continuum of cognitive processes, resulting in her students' written reflections at higher levels of critical-thinking abilities as measured by the reflection criteria.

Three of the four visual-arts teachers in Level 1 provided evidence of instructional materials developed for students to reflect upon their artwork as an instructional strategy. Three of the 4 visual-arts teachers provided copies of formal instructional materials developed for students to reflect upon their artwork as an instructional strategy, questions on a handout about the artwork posed by the teacher, and required the students' handwritten short answers.

Portfolio Implementation and Examination

To gain an understanding of the instructional methods that visual-arts teachers utilized to develop portfolios in secondary visual-arts courses, two of the interview questions addressed portfolio instructional strategies:

How would you describe the portfolios used in your classes?

How do the students select the artwork in his or her portfolios?

Ms. Rose (T2, Appendix N) described the portfolios that her students developed

One would be process portfolio, which is sort of a rough portfolio; the kids use it as they work to store their work, to keep their work in, and they also use it to review... Rather than having the kids take the stuff home, they'll keep their work

for a grading period or a semester…. and then by the end of the year they'll decide what the best work is and do a finished portfolio.

The portfolios were examined to investigate the instructional methods and materials the visual-arts teachers utilized to develop student portfolios and to address the level of portfolio maturation. Although Ms. Rose (T2) explained that she encouraged her students to select only the best work for a finished portfolio, I did not observe what she described as a "finished portfolio" in her classroom. For these reasons, she is included in Level 1. In Ms. Rose's classroom, I examined five portfolios. The portfolios contained each of the art projects that the student had completed to date beginning in the Fall of 2007. For example, one portfolio contained 46 examples of art assignments (observational drawings, still life, portraits) created in a variety of media (pencil, pen, colored pencil, ink). In the first two portfolios examined, I did not observe any student writing in the portfolio. The third portfolio I examined had a similar collection of artwork, and there was one example of student writing stapled to a drawing that described the subject matter and elements exhibited in the artwork, "Each shape draws attention to another shape because of the overlapping of objects. The color in this picture are both light and dark because of the value I used. The shapes are organic and unrealistic." The students written work identified and described three of the elements of art (shape, value, and color) exhibited in her work.

Ms. Wren (T3) provided evidence of portfolio guidelines. The Portfolio Introduction (CD 9) handout stated, "A portfolio is a kind of scrapbook." Students were instructed to "assemble it in any way you wish using a notebook or loose-leaf binder" and to "give it personal touches of artistry, decorating it with patterns, pictures or color, etc." The Photo Portfolio Review 2 (CD 18) contained a list of the required portfolio contents

(introduction, handouts, trackers). The Portfolio Reflections (CD 19) handout instructed students to look through their portfolio, select two images that "will not be returned to you," and answer the two questions by the end of the period. Question 1. What makes work "Quality Work"? Four lines were provided on the handout for students to write their response to the question. Question 2. "Choose a subject that has some meaning, value, and worth to you. What is it about this picture that makes you feel you were successful? Your response should include why it has value, using terms like contrast, focus, subject matter, lighting, composition, etc. A minimum of two paragraphs is required." Ms. Wren explained that she has kept all of her former students Portfolio Reflections, although she did not provide any copies for me to examine. From the photography portfolios reviewed, one student's portfolio exhibited four 3in. X 3in. and one 3in. X 5in. black and white photographs. This example typified the photography portfolios that I observed; there was no evidence of enlargements, neither 5in. X 7in. nor 8in. X 11in. black-and-white photographs exhibited in the portfolios examined, the portfolios contained a collection of completed worksheets. The feedback students received was limited to comments and grades displayed on the worksheets.

There were no *e*-Portfolios (digital format that resides on a disk or CD-ROM) or webfolios (accessible from the World Wide Web) in an of the Level 1 classrooms. I asked second-year visual-arts teacher Mr. Snyder (T1, Appendix M) if he had a computer in his classroom.

> Yeah, underneath that TV, there is a computer there. And that again I'm hoping to have replaced. I'd like to be a little more technologically friendly. I think that's the thing that Thoreau in particular is just a little bit behind in its technology. There's [*sic*] other schools that are much more cutting edge. Like Mission, actually. But I do think that the traditional is really important.

The evidence gathered support that the four visual-arts teachers encouraged their students to develop portfolios. The portfolios contained evidence of the visual-arts teachers' implementation of the California Content Standards for the Visual-Arts Standard (VA Standard) "2.2 Prepare a portfolio of original two-and three-dimensional works of art that reflects refined craftsmanship and technical skills" (CDE, p. 18). The majority of the portfolios in Level 1 were folders that contained from 19 to 46 pieces of two-dimensional artwork created as course assignments during the Fall 2007 and Spring 2008 semesters. The students collected completed assignments in a course in a folder. The items were arranged in chronological order. There was little deep reflection. The feedback was limited to comments and grades displayed on the work samples. The students had no schema that guided the organization and artifact selection.

Levels of Students' Reflections Upon Artwork

The portfolio criterion was used as a tool to investigate what level students were able to reflect upon their artwork in the portfolio. In most cases, the written reflection was considered to be one or more responses to questions posed by his or her teacher written on a handout or on a sheet of paper that was included in the portfolio. Of the portfolios observed in Level 1, the majority of the portfolios did not include evidence of students' written work. Of the portfolios that contained written work, the majority was handwritten short answers (sentences, paragraphs) in response to questions printed on a handout by the teacher. Of the portfolios that contained students written work, most of the students' demonstrated limited opportunities to describe or critique their artwork. Ms. Wren (T3) asked her students, "What lines were your trying to capture when you shot your picture? Did it work?" A female student stated at Level 2: Below Basic as measured

by the reflection criteria. "The two girls and the boy with the skateboard, and it kind of worked I guess."

Three student's portfolio contained writing assignments from Ms. Rose (T2) that described the elements of art "used to make the drawing a success" at three different levels. A male student identified an example of his artwork and described the selected work of art at Level 3: Basic as measured by the reflection criteria.

> I think my drawing worked out because of the contrast of light and dark colors along with the free-flowing shapes. I was bit confused at the beginning, and I couldn't find enough variety and shapes at first, but I become more relaxed and tried to fill the paper with different shapes, but I made sure not to over do it. It feels that my drawing didn't turn out too bad and I like the fact that I overlapped some of my shapes to keep the picture smooth. I used value and variety in my drawing also. There seems to be a lot going on in my picture, but for the first time it wasn't too bad. There is a little depth in my drawing due to the large shaded shapes in the back and the smaller ones in the front.

A female student described what she liked about her work at Level 4: Proficient as measured by the reflection criteria.

> What I like about my drawing is the balance of shapes. I used a lot of curved lines and swirls, which gave it a softer look. I started by putting a 2-in. border around my paper. Then I drew a large, curved shape at the top of my paper. From there I added more large free-flowing shapes. Then I added more medium and small shapes to balance the drawing out. I used my imagination to put together the random objects. Then I used a regular pencil to draw my shapes. I began to shade with a 3HB and HB pencil. I imagined a light shining on the shapes to help me figure out how and where to shade the shapes, which gave the picture more depth and value. Each shape draws attention to another shape because of the overlapping of objects. The color in this picture are both light and dark because of the value I used. The shapes are organic and realistic.

In reviewing Ms. Rose's (T2) handouts, I recognized that the example of student writing was aligned with the handout Describing an Artwork (CD 3) that provided students with a guide to describe an artwork that included the label information and subject matter. A male student stapled his writing to his pencil drawing Level 5: as

measured by the reflection criteria.

> My First High School Drawing, 9-10-07, pencil. I just began drawing organic shapes, 9in. X 12in., America. In my drawing I unintentionally drew an organic shape that looks like a dinosaur and another one that looks like a giraffe. The dinosaur looks like it boxing the giraffe looks as if was drinking water. My shapes are curved, swirling and round. My colors consist of just grey, white, and black. Most of my shapes are unrealistic. My picture only appears semideep.

There were notable differences with respect to the levels of student's ability to describe and to critique the selected work of art between the different teachers. The student reflective writing samples from Ms. Rose (T2) were at proficient and advanced levels in his or her ability to describe his or her artwork when compared with the students from the other three high schools.

<div align="center">Portfolio Maturation Level 2-Curriculum Vitae</div>

Portfolio Maturation Level 2-Curriculum Vitae (Level 2) represents four visual-arts teachers' from four different high schools in Northern California. Pioneer High School and Hillcrest High School are each located in rural areas North of San Francisco. Chavez High School and Marina High School are each located in suburban communities South of San Francisco. In Level 2, student work was guided and arranged by teacher- or institution-determined curriculum requirements or standards as measured by the portfolio criteria. Through the observations and interviews with the four visual-arts teachers, a view emerged of factors that promoted students' self-reflection and critical-thinking abilities. This section focuses on the instructional strategies, the instructional materials, and the portfolio maturation of the visual-arts teachers at Portfolio Maturation Level 2-Curriculum Vitae.

Instructional Strategies

Two of the interview questions addressed factors that promoted students' self-reflection and critical-thinking abilities:

How do the students reflect upon his or her work in the portfolios?

How do you encourage your students to reflect upon his or her artwork in his or her portfolios?

Each of the visual-arts teachers in Level 2 expressed that they encouraged their students to reflect upon their work. Ms. Chan (T6) emphasized the importance of students reflecting upon artwork through critiques with this response

> I also like to look at what's done well in other people's work and what needs an improvement, because part of my theory is, and I used to say this when I taught at the junior-college level, is if you can't analyze other people's work, you're going to be a better artist the more you learn to analyze artwork. It's really important to go through that process of looking at other people's work and analyzing it, because then it helps bring your level of your work up.

Mr. Tanaka (T4) engaged in discussion as an instructional strategy with his advanced art students, which is illustrated by the following:

> With every project that they do, we have a salon, if you will, and mimicking a salon of France where people talked about art, so I put that up, in order of what I think grades should be, and so that's an assessment, and then the kids argue, "well that shouldn't be up there!" and then we kind of collectively decide, I was wrong on that one, I was right on that one, so that's how we assess work. And then we allow the kids to take the work down based on what they heard and then work on it some more so they can reach the higher level. So assessment is supposed to improve instruction, not say I'm the art guru and this is what is art because I say it is.

I observed Mr. Tanaka's Advanced Art class and listened to the discussion that encouraged his students' observation of artwork, for example:

Tanaka: "Which do you think is the best use of color?"

Student: "Contrast colors."

Student: "Hot and cool."

Instructional Materials

Course documents were examined, numbered, cataloged, and provided evidence

of instructional materials the visual-arts teachers provided to encourage students to reflect

upon their artwork. Through the examination of CDs provided by the visual-arts teachers,

in Level 2, I determined that the handouts had questions that required students to reflect

upon their artwork and to construct brief responses by filling in the blanks, writing short

answers, or both approaches at the end of a project or the end of the semester.

Mr. Parker (T7) provided me with four course documents that the students

received as guidelines for the portfolio project that included "How to Write an Artist's

Statement" by Margie Miller (CD 24) that explained that an artist's statement could "be

an effective tool in helping people to better understand the artwork" and listed 11

suggestions for students to focus on the meaning of his or her work. For example,

1. Begin your statement by listing the following:
    Name of the Painting
    Artist's Name
    Year painted
    Media used (acrylics, watercolor, etc.)

2. What is your subject? Describe its colors and shapes.

In addition, Mr. Parker (T7) provided me with a copy of "The Basics of Framing

and Hanging Student Art Work" by Margie Miller (CD 25) that indicated "The artist's

name, the title of the piece, and the medium that was used should be clearly printed or

typed and displayed in the lower right hand corner of the artwork" as illustrated in Figure

4.

John Jingleheimer Schmidt
Carmel by the Sea
Watercolor on paper
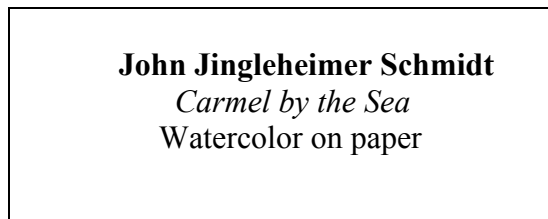
Figure 4. Label Information

Mr. Parker provided me with a copy of one course document (CD 24) that encouraged students to reflect upon their body of artwork, identify artwork in their portfolio, use the language of art to describe the artwork, and identify media in written form. Upon inspection of the documents that Mr. Parker provided, I determined that Mr. Parker provided his students with instructional materials that encouraged them to reflect upon their artwork, identify artwork in their portfolio, use the language of art and the technical properties evident in the work, and describe individual strengths and weaknesses in written form. Of the student writings examined, there was no evidence to support that Mr. Parker's students had followed the written directions as indicated on two of the handouts "How to Write an Artist's Statement." The examples of student work (CD 11 to 13) revealed that the students described and critiqued their artwork at basic and below levels as measured by the reflection criteria.

Ms. Chan (T6) provided copies of course documents that required her students to reflect upon their artwork in their portfolio. First, the Process Assessment Advanced/Senior Studio handout and worksheet (SW 5) instructed the students to select a partner and to evaluate their work midway through the process using four prompts (composition, surface, color, impact) to evaluate the work. Second, the Advanced Art Final Recycled Assemblage Art handout (SW 6) provided students with several opportunities to reflect upon their artwork that included the development of a "written

criteria for selection of a body of work from your portfolio that would represent significant achievement." The Advanced Art Final Portfolio Analysis and Presentation handout (SW7) was designed so that students had the opportunities to reflect upon their artwork that included the selection of "your 3 strongest works of art from your portfolio of the year's work," "the intent of the work, and your use of media." Students were instructed to "write a brief paragraph, using appropriate art vocabulary."

Ms. Chan's course documents required the students to reflect upon their artwork, identify artwork in their portfolio, use the language of art to describe the artwork, identify media, and describe problems and significant achievement in written form. Upon inspection of the documents, I determined that Ms. Chan provided her students with instructional materials for the students to reflect upon their artwork, use the language of art, and discuss the technical properties evident in the work that were aligned with the first step of Feldman's (1993) model for art criticism and Ragans' (2000) method involving description.

Ms. Gomez (T5) provided me with two photocopied International Baccalaureate Visual Arts Candidate Record Booklets (SW 9 and 10) to examine. Each IB booklet contained instructions to the candidates, 20 pages of the students' research workbooks, up to 12 color photographs of studio work, and an artist's statement. The students were instructed to glue each photograph on the application form and indicate the title, medium, size of original, and month of completion in the space provided. In addition, candidates were required to write a brief (300 words maximum) statement in regard to their growth and development as an artist in the IB Diploma program. The prompts in the International Baccalaureate Visual Arts Candidate Record Booklets included the following:

What are you trying to achieve in your work?
What strengths do you see?
What problems have you faced?
How have you attempted to overcome any perceived weaknesses?
Who/what has influenced you? Why?
How have you researched your work?
How have you experimented with media and techniques? (International Baccalaureate Visual Arts Candidate Record Booklet, 2007, p. 2)

International Baccalaureate Visual Arts Candidate Record Booklets provided a set of questions that call for students to reflect upon their artwork, identify artwork in their portfolio, use the language of art to describe the artwork, identify media, describe problems, and indicate achievements in written form. From the International Baccalaureate Visual Arts Candidate Record Booklets examined, I determined that the IB instructional materials provided an opportunity for students to reflect upon their artwork, identify artwork in their portfolio, discuss the media and techniques, and describe individual strengths and weaknesses in paragraph form.

Four of the visual-arts teachers provided evidence of instructional materials developed for students to reflect upon their artwork as an instructional strategy. One of the visual-arts teachers, Mr. Tanaka (T4) provided one handout that he had developed for his beginning and advanced students to reflect upon their artwork and required the students' to provided handwritten short answers. The other three visual-arts teachers required students to write paragraphs. Two of the visual-arts teachers required word-processed documents. The instructional materials developed for students ranged the continuum of Anderson et al. (2001) Taxonomy Table resulting in different levels of students' critical-thinking abilities as measured by the reflection criteria.

Portfolio Implementation and Examination

To gain an understanding of the instructional methods that visual-arts teacher

utilized to develop portfolios in secondary visual-arts courses, two of the interview

questions addressed portfolio instructional strategies:

How would you describe the portfolios used in your classes?

How do the students select the artwork in their portfolios?

Mr. Parker (T7) described the portfolio processes he has developed.

> Every year we do a class portfolio or a year portfolio, and we've done it in video
> form, we've done it in scrapbook or photo album form, but it's an overview of
> anything new or innovative that we did that year, that was more encompassing of
> group-based projects – we do a lot of group projects here – and with the video,
> every kid that [*sic*] leaves gets a copy of the video, so that's kind of a video of the
> year as well.

Mr. Tanaka (T4) described the portfolio process he employs that is closely

aligned with the Advanced Placement (AP) Studio Art portfolio requirements:

> Well, they're set up in three sections and it mimics the way our curriculum is set
> up. There's a breadth portfolio, which describes a breadth of experience, and
> that's 12 works. Our finals are portfolio-driven from those breadth portfolios in
> our beginning classes, so the kids will throughout the year replace pieces, with
> our quarterly reviews, so every quarter, they usually do about 10 works a quarter,
> so by the end of the year they'll have hopefully close to 40 works. And from those
> 40 works in the beginning level, that'll constitute their breadth of experience. And
> I'm talking about 2-D. But in 2-D, they also have to, in that last final of the year,
> determine whether their work is more drawing or more design oriented. And then
> the second year, their portfolio has to be based on concentration. And again, this
> all mimics the AP portfolios.

Ms. Gomez (T5) encourages her students to "Keep everything.

Don't throw everything away, because I want to see how it progresses, how you started

and where you are now. So that's how the portfolio is used most often."

Ms. Chan (T6) described the pivotal role of portfolios with this statement.

When you show your portfolio, you want to start out with a strong piece, and you want to end with a strong piece because that's part of how you sell your artwork, and this would be like a showing portfolio, like they might show it for getting into art school, or into an art program, or getting a job. There might be an entry-level job where they can use their portfolio. I have one student who already is. Some of these pieces, she doesn't have very many of them, the college wanted some examples so she sent them all.

Through the interviews with the Level 2 visual-arts teachers, a view emerged of the instructional strategy each of the four visual-arts teachers employed to help students develop portfolios of artwork. All four of the visual-arts teachers (T4, 5, 6, & 7) encouraged their students to keep all of the art projects (sketches, rough drafts, notes, work-in-progress, and finished work) in a folder and select only the best work for their portfolio. I determined that all four of the visual-arts teachers in Level 2 encouraged their students to develop portfolios for external assessment purposes. Three of the visual-arts teachers (T4, T6, & T7) encouraged their students to develop AP Studio Art portfolios to submit for evaluation at the end of the school year. These three visual-arts teachers' portfolio guidelines mirrored the AP Studio Art portfolio requirements. According to the AP Studio Art Course Description,

> The AP Studio Art portfolios are designed for students who are seriously interested in the practical experience of art. AP Studio Art is not based on a written examination; instead, students submit portfolios for evaluation at the end of the school year. (College Board, 2008, p. 5)

The instructional goals of the AP Studio Art program "emphasizes making art as an ongoing process that involves the student in informed and critical decision making" (p. 6). The portfolios share a basic, three-section structure that requires the student to demonstrate a "fundamental competence and range of understanding in visual concerns" (p. 7). Students are asked to

> Demonstrate a depth of investigation and process of discovery through the

Concentration (Section II) section. In the Breath section (Section III), the student is asked to demonstrate a serious grounding in visual principles and material techniques. The Quality section (Section I) permits the student to select the works that best exhibit a synthesis of form, techniques, and content. (College Board, 2008, p. 7)

In May, students receive the AP Studio Art portfolio materials; these include the Section II, Concentration, envelope, with spaces for a written commentary describing what the area of concentration is and how it evolved. The written responses are not graded as pieces of writing. Students are asked to respond to the following questions:

1. What is the central idea of your concentration?
2. How does the work in your concentration demonstrate the exploration of your idea? You may refer to specific slides as examples.
(College Board, 2008, p. 16)

The portfolios in Level 2 appeared in different formats. I observed a scrapbook portfolio and video portfolio at Hillcrest High School. In addition, the Hillcrest High School students created 2-D and 3-D art, selected works to include in their portfolio, developed a word-processed Artist's Statement, and included digital images of their artwork in each portfolio folder or binder. The AP portfolios that I observed at Hillcrest High School were in slide form; I did not observe any students' reflective writing. In contrast, the AP portfolios that I observed at Pioneer High School contained up to 16 pieces of two-dimensional artwork created over the course of several semesters. At both school sites, I did not observe any students' reflective writing to describe or critique the artwork in the AP portfolios.

One of the visual-arts teachers' (T5) portfolio instructional methods was aligned with the IB requirements. The Chavez High School students developed International Baccalaureate portfolios. The two International Baccalaureate Visual Arts Candidate Record Booklets that I observed at Chavez High School were copies of the original

documents that had been sent to IB. Each booklet contained up to 12 color photographs of studio work, 20 pages of the students' research workbooks, and a 300-word Artist's Statement. The students were instructed to glue each photograph on the application form and indicate the title, medium, size of original, and month of completion in the space provided.

Of the portfolios examined, I determined that the portfolios were at low levels of implementation, Level 2-Curriculum Vitae as measured by the portfolio criteria. I observed evidence to support that the visual-arts teachers encouraged students to develop original artwork. Typically the students selected their best artwork to include in their portfolio. Three of the visual-arts teachers (T6, T7, & T8) encouraged some of their students to develop portfolios to meet the AP Studio Art requirements. One teacher (T5) encouraged some of her students to develop portfolios to meet the IB requirements. One key finding that emerged from the data was the all of the portfolios of student artwork examined in Level 2 were at low stages of maturation. There was no evidence to support the visual-arts teachers' implementation of either *e*-Portfolios or webfolios in Level 2.

Levels of Students' Reflections Upon Artwork

The second research question probed to what extent do the portfolios contain evidence of students' self-reflection and critical-thinking abilities. Of the portfolios examined, the writing samples were photographed, printed, numbered, cataloged, examined, and evaluated using the reflection criteria. The reflective writing exhibited in the portfolio was examined to investigate if the student described an example of artwork in his or her portfolio using the vocabulary of the visual arts to express his or her observations. Table 6 provides individual data and total indicators identifying whether or

not and to what level students were able to reflect upon their artwork in the portfolio as measured by the reflection criteria.

Ms. Chan (T6) provided course documents and multiple opportunities for her students to describe and to critique artwork. One of Ms. Chan's students (SW 7) described his or her artwork at a proficient or above levels as measured by the reflection criteria.

> My piece has balance because the flowers balance out the skull physically and with "dark" and "lighter" subjects. The K9 or front tooth is emphasized as well as the brow ridge. The idea of life and death unify the objects. The smother surface of the skull works well with the busy petals of the flowers. There is a lot of variety with the strokes because there are short lines and very dark lines.

One female student described acceptable elements of her performance, "The smooth surface of the skull works well with the busy petals" and suggested a few changes for refining or reworking her art "More shading. More Color." In addition, she described one or more of the elements of art exhibited in the work of art. Three of Ms. Chan's students critiqued their artwork at proficient or above levels as measured by the reflection criteria. The content and teaching materials developed by Ms. Chan ranged the continuum of Anderson et al. (2001) Taxonomy Table, resulting in her students' higher levels of critical-thinking abilities as measured by the reflection criteria.

Of the IB portfolios examined, both portfolios contained word-processed Artist's Statements with references to artwork exhibited in the portfolios. Both students were able to describe his or her artwork using the vocabulary of the visual arts to express their observations at an Advanced Level as measured by the reflection criteria. Table 6 provides individual data and total indicators identifying whether or not and to what level students were able to reflect upon their artwork in the portfolio as measured by the

reflection criteria. One student was able to critique her artwork and to describe acceptable

and unacceptable elements of her performance using the vocabulary of the visuals arts at

a Proficient Level as measured by the reflection criteria. The content of the teaching

materials developed and provided by IB program ranged the continuum (Anderson et al.,

2001) from less complex cognitive process to more complex cognitive processes,

resulting in Ms. Gomez's students' higher levels of critical-thinking abilities as measured

by the reflection criteria. One 300-word Artist's Statement (SW 9) hinted at unacceptable

elements of his performance with the following passage:

> As a young artist I am inclined to be conscious when working on a piece, my
> inspiration comes from the society I live in, and I feel that when an individual
> looks at my art pieces, they should experience an aesthetic moment, and I found
> that my difficulty in being able to achieve this goal, but I was able to overcome
> this minor difficulty.

> Another Artist's Statement (SW10) included evidence of a student who described

acceptable elements of her artwork at Level 5.

> I believe that the piece turned out great. I used different media and the French-like
> culture is shadowed, with the music and the cello and just the whole piece
> reminds me of the Renaissance orchestral atmosphere

The student described unacceptable elements of her performance in this way

> Obstacles that I found were few; through these obstacles, I found out that my
> strengths were to come up with many ideas in a short period, and work efficiently,
> at correcting mistakes.

> She suggested changes for refining or reworking her art as follows:

> If I were given more time, I would have used it to clean up the mistakes that I
> made in my artworks. Often times, I feel that I'm running out of time, so I tend to
> skim over, and fix the major mistakes rather than paying attention to the small
> details…. On the edges of the guitar with more brownish colors … probably will
> be shaded with charcoal or brown pastels.

There were notable differences with respect to the levels of student's ability to describe and to critique the selected work of art between the different visual-arts teachers as indicated in Table 7. The student reflective writing samples from Mr. Parker (T7), Ms. Gomez (T5), and Ms. Chan (T6) demonstrated proficient and advanced levels in their ability to describe their artwork when compared with that of students from other high schools. The student reflective writing samples from Ms. Gomez (T5) and Ms. Chan (T6) were at proficient and advanced levels in their ability to critique their own artwork when compared with students in the other high schools. The visual-arts teacher in Level 2 had identified a curricular framework that helped the students organize their portfolios. Deep reflection was possible but not encouraged. There was little feedback on the selection of artifacts from teachers.

Research Question 2

To what extent do the portfolios contain evidence of students' self-reflection and critical-thinking abilities? The second research question is concerned with the extent to which the portfolios contained evidence of students' self-reflection and critical-thinking abilities. This question was addressed in three ways. First, I reviewed the visual-arts students' portfolios. Second, I analyzed the students' written reflections upon their artwork exhibited in the portfolios and determined what level of reflection students' written work demonstrated as measured by "The Criteria for Ascertaining Level of Students Reflections Upon Artwork and Critical-Thinking" (Appendix A). The examination of 44 portfolios provided evidence of 15 students' written reflection upon their artwork. In addition, two independent judges assessed the students' reflective writing samples. A comparison of my evaluation of the writing samples and the two

independent judge's evaluation of the writing samples were compared. Table 7 provides

individual data and total indicators identifying whether or not and to what level students

were able to reflect upon their artwork in the portfolio as measured by the reflection

criteria.

Table 7

Individual Statistics Including Demographic Data and Total Indices of
Critical-Thinking Skills Exhibited in Portfolios (n=15)

Student Work	School-Teacher	Portfolio Maturation Level	Student Description Level	Student Critique Level
1	HTHS-T2	1	5	2
2	HTHS-T2	1	4	3
3	HTHS-T2	1	4	3
4	MHS-T6	2	3	3
5	MHS-T6	2	2	3
6	MHS-T6	2	3	4
7	MHS-T6	2	4	4
8	MHS-T6	2	3	4
9	CCHS-T5	2	5	3
10	CCHS-T5	2	5	5
11	HHS-T7	2	4	3
12	HHS-T7	2	2	2
13	HHS-T7	2	3	3
14	PHS-T3	1	3	3
15	PHS-T3	1	3	2

As indicated in Table 7, the student reflective writing samples represented each of

the five levels of description. Of the 15 writing samples, four students demonstrated

Level 4-proficient and three students demonstrated Level 5-advanced ability to describe

an example of their artwork using the vocabulary of the visual arts to express their

observations. The majority of the students' reflective writing samples demonstrated basic

or below levels (Levels 3, 2, or 1) in their ability to describe the selected artwork as measured by the reflection criteria. *Describe* is a less complex cognitive process of the Taxonomy Table: *Remember*, *Understand*, and *Apply* (Anderson et al., 2001).

Third, the reflective writing sample exhibited in the portfolio was examined to investigate if the student critiqued an example of artwork in their portfolio and described acceptable and unacceptable elements of their performance and if the student suggested changes for refining the work or plans for future artwork using the vocabulary of the visual arts to express their observations and opinions. *Evaluate* requires more complex cognitive processes of the Taxonomy Table: *Analyze, Evaluate,* and *Create* (Anderson et al., 2001). Of the 15 writing samples, three students demonstrated Level 4-proficient and one student demonstrated Level 5-advanced ability to critique their artwork as measured by the reflection criteria as indicated in Table 7.

<div align="center">Themes</div>

As I observed visual-arts classrooms, interviewed visual-arts teachers, examined course documents, viewed portfolios, evaluated written reflections, determined the stage of portfolio maturation, and analyzed the data, seven themes emerged and are described in Table 8. In order to explore each theme, I have described the theme and supporting data for that theme in terms of the number of participants (visual-arts teachers) from Portfolio Maturation Level 1 (Level 1) and Portfolio Maturation Level 2 (Level 2).

Theme 1 Instructional Materials

During the interview, each of the seven visual-arts teacher participants expressed that they provided opportunities for his or her students to reflect upon their artwork. Two instructional strategies emerged from the data to develop students' self-reflection and

critical-thinking abilities, formal and informal approaches. Informal methods appeared as questions and group discussions, students responding to their artwork or that of other students. Formal methods appeared as instructional materials with questions prepared by the teacher on a handout to be answered by the students in written form responding to their individual artwork at the end of a project or the end of the semester.

I examined the instructional materials to determine if the instructions encouraged students' self-reflection of their artwork, to describe their work of art (the size of the artwork, the medium used, the processes or techniques used to create the artwork, and the subject matter, that is, figures, animals, objects, etc.) or to critique their work using the vocabulary of the visual arts, the elements of art, and the principles of design. Each of the visual-arts teachers in Level 2 and three teachers in Level 1 gave me copies of instructional or assessment materials. Two of the visual-arts teachers visual-arts teachers in Level 2 and two of the teachers in Level 1 gave me examples of student work that was aligned with the instructional or assessment materials. Upon inspection of the documents provided by three of the visual-arts teachers, the instructional materials ranged from less complex cognitive process to more complex cognitive processes.

Theme 2 Reflective Writing Samples

I analyzed the students' written reflections upon their artwork exhibited in the portfolios, and determined what level of reflection students' written work demonstrated as measured by "The Criteria for Ascertaining Level of Students Reflections Upon Artwork and Critical-Thinking" (Appendix A). Of the 44 portfolios observed, 15 contained examples of reflective writing, 7 students demonstrated proficient or advanced levels in ability to describe their artwork, and 4 students demonstrated proficient or

advanced levels in ability to critique their artwork as measured by the reflection criteria. In Level 1, one student demonstrated proficient or advanced levels in ability to describe artwork. There was no evidence of students critiquing their artwork at proficient or advanced levels in Level 1. In Level 2, three of the students demonstrated proficient or advanced levels in ability to describe artwork, and there was evidence of two students critiquing their artwork at proficient or advanced levels as measured by the reflection criteria.

Theme 3 Portfolios of Artwork

"The Criteria for Ascertaining Level of Maturation" (Appendix C) developed by Love et al. (2004) provided the framework for the purpose of defining a student's or school's current level of portfolio development.   I examined the 44 portfolios of student artwork and determined the current level of portfolio development. The majority of the visual-arts teachers encouraged his or her students to create traditional portfolios that contained all of the artwork they had created over the course of the semester. In Portfolio Maturation Level 1, the visual-arts teachers did not provide students with a portfolio criterion. The students in collected completed assignments and often arranged the items in a chronological order. There was little deep reflection by the students. There was little or no feedback from the visual-arts teachers. The students in Portfolio Maturation Level 2, the portfolios were at a higher stage of portfolio implementation. The visual-arts teachers provided a framework that help students organize his or her portfolios. Deep reflection was possible but not encouraged. There was little or no feedback on the selection of artifacts from the visual-arts teachers.

Table 8

Results of Qualitative Analysis: Portfolio Maturation Levels 1 and 2

Theme	Portfolio Maturation Level 1 ($n = 4$)	Portfolio Maturation Level 2 ($n = 4$)
Instructional Materials (Theme 1)	A. Teachers claimed to provide opportunities for students to reflect upon artwork ($n = 4$, 100%)	A. Teachers claimed to provide opportunities for students to reflect upon artwork ($n = 4$, 100%)
	B. Teacher provided instructional materials that required more complex cognitive processes for students to evaluate their artwork ($n = 3$, 75%)	B. Teacher provided instructional materials that required more complex cognitive processes for students to evaluate their artwork ($n = 4$, 100%)
	C. Teacher provided examples of student work aligned with instructional materials that required more complex cognitive processes for students to evaluate their artwork ($n = 2$, 50%)	C. Teacher provided examples of student work aligned with instructional materials that required more complex cognitive processes for students to evaluate their artwork ($n = 2$, 50%)
Reflective Writing (Theme 2)	A. Students demonstrated proficient or advanced levels in ability to describe artwork ($n = 1$, 25%)	A. Students demonstrated proficient or advanced levels in ability to describe artwork ($n = 3$, 75%)
	B. Students demonstrated proficient or advanced levels in ability to critique artwork ($n = 0$)	B. Students demonstrated proficient or advanced levels in ability to critique artwork ($n = 2$, 50%)
Feldman Method or Ragans' Process (Theme 4)	A. Instructional materials for students to write about their artwork aligned with The Feldman Method or Ragans' 4-step process ($n = 2$, 50%)	A. Instructional materials for students to write about their artwork aligned with The Feldman Method or Ragans' 4-step process ($n = 3$, 75%)

Table 8 continues

Table 8 Continued

Results of Qualitative Analysis: Portfolio Maturation Levels 1 and 2

Theme	Portfolio Maturation Level 1 ($n = 4$)	Portfolio Maturation Level 2 ($n = 4$)
The Visual-Arts Content Standards (Theme 5)	A. The Visual-Arts standards posted in the classroom ($n = 0$)	A. The Visual-Arts standards posted in the classroom ($n = 0$)
	B. Portfolios serve a variety of purposes ($n = 0$)	B. Portfolios serve a variety of purposes ($n = 4$, 100%)
	C. Portfolios included students written reflections ($n = 3$, 75%)	C. Portfolios included students written reflections ($n = 3$, 75%)
Expected School-Wide Learning Results (ESLRs) (Theme 6)	A. The ESLRs posted in the visual-arts classroom ($n = 4$, 100%)	A. The ESLRs posted in the visual-arts classroom ($n = 4$, 100%)
	B. Evidence of more complex cognitive processes: *Analyze* ($n = 0$)	B. Evidence of more complex cognitive processes: *Analyze* ($n = 1$, 25%)
	C. Evidence of more complex cognitive processes: *Evaluate* ($n = 2$, 50%)	C. Evidence of more complex cognitive processes: *Evaluate* ($n = 3$, 75%)
	D. Evidence of more complex cognitive processes: *Create* ($n = 4$, 100%)	D. Evidence of more complex cognitive processes: *Create* ($n = 4$, 100%)
Computers (Theme 7)	A. Evidence of computers in visual-arts classroom ($n = 4$, 100%)	A. Evidence of computers in visual-arts classroom ($n = 4$, 100%)
	B. Evidence of students word-processed documents ($n = 0$)	B. Evidence of students word-processed documents ($n = 2$, 50%)
	C. Evidence of *e*-Portfolios or webfolios ($n = 0$)	C. Evidence of *e*-Portfolios or webfolios ($n = 0$)

As an instructional strategy, the four visual-arts teachers in Level 2 aligned the portfolio requirements with either the International Baccalaureate (IB) or Advanced Placement Studio Art Portfolio (AP) criteria. One of the visual- arts teachers provided me with copies of his students AP portfolios in a slide format. Two of the visual-arts teachers provided AP portfolios that contained 10 to 20 pieces of best artwork the students had created over one or more semesters. In both levels, the AP portfolios contained little or no evidence of reflective writing. The IB portfolios each contained up to 12 color prints of selected artwork, a statement that briefly (300 words maximum) described their growth and development as an artist, and 20 pages photocopied from their research workbook that provided evidence of independent research, critical research, contextual research, and visual research.

Theme 4 The Feldman Method or Ragans' Process

The Feldman (1993) Method is a method of art criticism employed by artists, art students, art instructors, and artists to form interpretations, explain critical understandings, and defend critical judgments. Similarly, Ragans' (2000) 4 steps of art criticism process is an instructional method that encourages students to form their own opinions about works of art and to develop critical-thinking abilities. The first unexpected finding was that none of the visual-arts teachers in directly employed either The Feldman (1993) Method or Ragans' (2000) process as an instructional framework to guide students' reflection upon their artwork. In Level 1, two teachers gave me copies of instructional or assessment materials that were similar to The Feldman Method or Ragans' process. In Level 2, three of the visual-arts teachers provided instructional materials that were similar to The Feldman Method or Ragans' process.

Theme 5 The National Visual Arts Standards

The information that formed the backdrop and context for this study was centered on The National Visual Arts Standards (National Art Education Association, 1994) that established a framework for arts-education programs in schools to ensure that all students meet grade-level standards and more specifically "Content Standard #5: Reflecting upon and assessing the characteristics and merits of their work and the work of others" (National Art Education Association, 1994). One of the unexpected findings of this study was that neither The California Content Standards for the Visual Arts nor the National Visual Arts Standards were posted in the visual-arts classrooms observed.

I determined that two of the visual-arts teachers in Level 1 and three of the teachers in Level 2 provided instructional material and samples of student work that upheld The National Visual Arts Standard #5: Reflecting upon and assessing the characteristics and merits of their work and the work of others" (The National Art Education Association, 1994). In addition, there was evidence to support that the seven visual-arts teachers upheld Visual- and Performing-Arts Framework for California Public Schools and provided students with a variety of opportunities to meet the content standards and helped students prepare portfolios. In Level 1, the visual-arts teachers encouraged his or her students to create traditional portfolios that contained all of the artwork they had created over the course of the semester in a folder or scrapbook. In Level 2, the visual-arts teachers upheld The California Content Standards for the Visual Arts, Component Strand "5.2 Prepare portfolios of their original works of art for a variety of purposes (e.g., review for postsecondary applications, exhibition, job application, and personal collection)" (CDE, 2004, p. 121).

Theme 6 Expected School-Wide Learning Results (ESLRs)

In four of the five high schools (see Settings in Chapter III), I observed the posted Expected School-Wide Learning Results (ESLRs) that contained a critical-thinking component. The visual-arts teachers provided students with opportunities to develop critical-thinking skills and more complex cognitive processes: *Evaluate* and *Create.* In Level 1, I determined that two teachers and in Level 2 that three teachers provided instructional or assessment materials that supported the category: *Evaluate*, to provide metacognitive knowledge is a more complex cognitive process. All of the visual-arts teachers provided instructional or assessment materials that I classified as in the category: *Create*, to provide metacognitive knowledge is a more complex cognitive process.

I did not find any teachers' instructional or assessment materials provided that were in the category: *Analyze,* to provide metacognitive knowledge is a more complex cognitive process (Anderson et al., 2001). In Level 2, I determined that two students' written reflections demonstrated the students' ability to analyze their individual artwork and describe how the elements of art and the principles of design were used to create the content of the art, mood, or theme of their artwork.

Theme 7 Computers

One or more computers was observed in each of the visual-arts classrooms. In Level 1, none of the visual-arts teachers were observed encouraging students to create word-processed documents. In Level 2, there evidence of two visual-arts teachers requiring students to create word-processed documents. Also in Level 2, there evidence of one visual-arts teacher requiring students to include digital photographs of their

artwork in their word-processed documents. In each case, there was no evidence of *e*-Portfolios or webfolios observed.

Summary

In summary, of the 44 portfolios examined, 15 contained writing samples that facilitated the demonstration of student's self-reflection and critical-thinking in visual-arts courses observed in the Spring of 2008. The instructional materials and the student reflective writing samples were examined for evidence of less complex cognitive process categories: *Remember, Understand,* and *Apply,* to more complex cognitive processes of the Anderson et al. (2001) Taxonomy Table: *Analyze, Evaluate,* and *Create*. The examination of portfolios revealed that the majority of portfolios (34%) contained little or no evidence of students' self-reflection and written reflection upon their artwork exhibited. Of the 15 portfolios that exhibited evidence of students' self-reflection and written reflection upon their artwork, the visual-arts teachers who provided instructional materials that required students to demonstrate more complex cognitive processes: *Analyze* and *Evaluate,* and allotted instructional time for students to reflect and write about their artwork as an instructional strategy were able to develop their students' critical-thinking abilities at higher levels than the visual-arts teachers who provided little or no instructional materials. The majority of the visual-arts teachers encouraged his or her students to create traditional portfolios that contained all of the artwork they had created over the course of the semester. There was no evidence of *e*-Portfolios or webfolios observed. The four visual-arts teachers who provided students with specific portfolio criteria guidelines aligned the requirements with external assessments such as AP or IB as an instructional strategy were able to develop their students' portfolios at

higher levels of maturation than the visual-arts teachers who provided little or no portfolio criteria.

Of the six visual-arts teachers who provided copies of course documents (CD 1 to 23), I determined that the six visual-arts teachers provided formal instructional materials developed for students to reflect upon their artwork as an instructional strategy. From the course documents and student work observed, I found evidence to support the range of cognitive process, the students describing their artwork, critiquing their artwork, or both. Four of the visual-arts teachers (T2, T5, T6, & T7) provided course documents that provided a framework for students to describe and to critique their artwork. Two of the visual-arts teachers (T2 & T6) instructional materials were similar to Feldman's (1993) model for art criticism and Ragans' (2000) method involving description. From course documents, I observed that of the two of the visual-arts teachers (T5 & T7) provided their students with guidelines for students' reflection upon their artwork in order to develop word-processed Artist's Statements to include in the portfolio.

CHAPTER V

SUMMARY, DISCUSSION, IMPLICATIONS, AND
RECOMMENDATIONS

The purpose of this qualitative study was twofold: to obtain an understanding of

the perceptions of secondary-school visual-arts teachers in Northern California who have

facilitated portfolios of student artwork as an instructional strategy and to examine

students' written reflections on the characteristics and merits of their artwork exhibited in

portfolios in order to determine what level of reflection students demonstrated and what

was the stage of portfolio maturation. It was assumed that the one-on-one interviews with

the secondary-level visual-arts teachers who participated in the study would provide an

opportunity for the teachers to reflect upon their practice and to realize the importance of

developing students' reflective-thinking skills and critical-thinking abilities. Seven major

themes emerged from the analysis of the data. This final chapter includes a summary of

the study, a summary of the findings, the limitations of the study, a discussion, the

educational practice implications, recommendations for future research, the conclusions,

and the afterword.

Summary of the Study

The information that formed the backdrop and context for this study was centered

on visual-arts teachers and students within the educational context of The National Visual

Arts Standards (National Art Education Association, 1994), which are specific to each

discipline in Dance, Music, Theatre, and Visual Arts. These standards established a

framework for arts-education programs in schools to ensure that all students meet grade-

level standards and more specifically "Content Standard #5: Reflecting upon and

assessing the characteristics and merits of their work and the work of others" (National

Art Education Association, 1994). The factors that gave rise to the focus of this study

included the many changes that have occurred in the public-school system since the

1980s: education polices focused on standards-based education reforms to improve the

academic achievement of all students in public schools. Since the passage of the

Elementary and Secondary Education Act (2001), better known as No Child Left Behind

Act (NCLB), there has been a nation-wide increase in educational accountability; states

and school districts across the country have reexamined standards, set targets for

improvement, and introduced rigorous testing. In California Public Schools, The Visual-

and Performing-Arts Framework for California Public Schools (California Department of

Education (CDE) 2004) clearly indicates that

> Teachers should provide students with a variety of opportunities to meet the
> content standards and help students prepare portfolios of their work for personal
> use, for use in applying to postsecondary institutions, or for career presentations
> and exhibitions. (p. 163)

As explained in Chapter II, the literature relevant to this study focused on

previous studies on portfolios, assessment in the visual arts, critical thinking, as well as

case study research methodologies. Since the development of Bloom's taxonomy in the

1950s, the taxonomy has been reinterpreted in different ways. In particular, Anderson et

al. (2001) extended the original Bloom's Taxonomy by combining both the cognitive

process and knowledge dimensions and developed The Taxonomy Table categories:

Remember, Understand, Apply, Analyze, Evaluate, and *Create* as a continuum, "that is,

Understand is believed to be more cognitively complex than *Remember*, *Apply* is

believed to be more cognitively complex than *Understand*," and so on (p. 5). Kowalchuk

(1999) commented, "art teachers should be aware of these characteristics and aim at

moving teaching and learning toward the higher end of the scale" (p. 14). For the purpose

of this study, Anderson et al.'s Taxonomy Table served as the foundational basis to create a new instrument to identify and categorize the level of student's written self-reflection upon his or her artwork.

"The Criteria for Ascertaining Level of Student Reflections Upon Artwork and Critical-Thinking Skills Exhibited in Portfolios" (Appendix A) and "The Coding Sheets for Level of Student Reflections" (coding sheets; Appendix B) helped to insure that the measurements are valid and reliable. Two independent judges, both visual-arts teachers with over 20 years of experience teaching at the secondary level, verified the results of the levels of student's written self-reflection and helped to provide validity and reliability evidence of the instrument. The researcher and two independent judges were not able to produce a reliable measure of student achievement. An additional perspective for this study was "The Criteria for Ascertaining Level of Maturation" (Appendix C) developed by Love, McKean, and Gathercoal (2004) used to address the current levels of portfolio implementation. As a case study with two portfolio maturation levels, this research primarily used a qualitative perspective and relied chiefly on observations, interviews, and artifacts. All of the sources of evidence were reviewed and analyzed together so that the study's findings were based on the convergence of information from qualitative and quantitative sources to increase the reliability and validity of the evidence.

Summary of Findings

The aim of my study was to investigate the perceptions of visual-arts teachers who have facilitated portfolios not only to develop students' art-content knowledge and creative skills but also to develop students' self-reflection and critical-thinking abilities. Additionally, this study examined students' written reflections upon the characteristics

and merits of their individual artwork exhibited in the portfolios, investigated what level of reflection students demonstrated, and categorized the stage of portfolio maturation. The case study method provided opportunities to explore and document the methods visual-arts teachers employ to encourage students to reflect upon and assess their artwork, and the examination of student portfolios in different settings using a variety of data-collection procedures.

The first research question explored how visual-arts teachers encouraged students to reflect upon and assess the characteristics and merit of their artwork exhibited in portfolios in secondary visual-arts courses. The visual-arts teachers' instructional and assessment materials and the student writing samples were examined. The results of the data analysis indicated that visual-arts teachers who developed formal methods for his or her students to reflect upon their individual artwork allotted instructional minutes for students to write about their artwork and provided instructional or assessment materials as evidence that ranged from less complex cognitive process to more complex cognitive processes of the Taxonomy Table: *Remember, Understand, Apply, Analyze, Evaluate,* and *Create* (Anderson et al., 2001) as an instructional strategy were able to develop students' critical-thinking abilities at higher levels as measured by "The Criteria for Ascertaining Level of Students Reflections Upon Artwork and Critical-Thinking." Six of the seven visual-arts teachers' instructional and assessment materials provided opportunities for students to think critically.

The second research question investigated to what extent the portfolios contained evidence of students' self-reflection and critical-thinking abilities. Forty-four portfolios were investigated. Fifteen portfolios (34%) contained students' written reflections upon

their artwork. Four students' written reflections demonstrated Level 4-proficient and three students' written reflections Level 5-advanced ability to describe an example of their artwork using the vocabulary of the visual arts to express their observations that included the size of the artwork, the medium used, the processes or techniques used to create the artwork, and the subject matter or, if there were no recognizable objects in the artwork, the student identified and described one or more of the elements of art exhibited in the work of art. The more than half of the students' reflective writing samples (53%) demonstrated basic or below levels (Levels 3, 2, or 1) in their ability to describe the selected artwork as measured by "The Criteria for Ascertaining Level of Students Reflections Upon Artwork and Critical-Thinking." *Describe* is a less complex cognitive process of the Taxonomy Table: *Remember, Understand,* and *Apply.* Of the 15 written reflections, four students (27%) provided evidences to think critically and demonstrated Level 4-proficient and Level 5-advanced ability to critique their artwork as measured by "The Criteria for Ascertaining Level of Students Reflections Upon Artwork and Critical-Thinking." *Evaluate* requires more complex cognitive processes of the Taxonomy Table: *Analyze, Evaluate,* and *Create* (Anderson et al., 2001).

The 44 portfolios of student artwork were at low levels (Portfolio Maturation Levels 1 and 2) of maturation as measured by "The Criteria for Ascertaining Level of Maturation." "The Criteria for Ascertaining Level of Maturation" was selected as an instrument in this study because it demonstrated its usefulness for the purpose of defining the five levels of maturation among paper, *e*-Portfolio, and webfolios to ascertain a student's or school's current level of portfolio development. It is important to note that the instrument developed by Love et al. is used to evaluate graduate students enrolled in

teaching credential programs to document their professional growth and development over time on the World Wide Web. The instrument was not developed for high-school visual-arts students to document their artistic growth and development over time on the World Wide Web.

The majority of visual-arts teachers encouraged his or her students to create traditional portfolios that contained all of the artwork they had created over the course of the semester. Four of visual-arts teachers at Portfolio Maturation Level 1 (Level 1) gave their students little or no portfolio criteria, the students completed assignments, and arranged the items often in a chronological order, there was little or no reflection by the students, and there was little feedback from the visual-arts teachers. Four of visual-arts teachers at Portfolio Maturation Level 2 (Level 2) provided a framework that helped students organize their portfolio at a higher stage of portfolio maturation as measured by "The Criteria for Ascertaining Level of Maturation." The four visual-arts teachers at Level 2 aligned the portfolio requirements with the International Baccalaureate (IB) or the Advanced Placement Studio Art (AP) criteria as an instructional strategy. The students completed assignments and included the required AP or IB items, there was little or no written reflection included by the students, and there was little or no feedback on the selection of artifacts from the visual-arts teachers. The four visual-arts teachers aligned the portfolio requirements and the assessment materials with IB or AP criteria as an instructional strategy.

The findings from my study were presented as one individual case study with two Portfolio Maturation Levels as measured by "The Criteria for Ascertaining Level of Maturation." Portfolio Maturation Level 1 included the portfolios at Level 1- Scrapbook:

students had no schema that guided the organization and artifact selection. The Level 1 portfolios contained evidence of the visual-arts teachers' implementation of The California Content Standards for the Visual Arts (VA Standard) Component Strand "2.2 Prepare a portfolio of original two-and three-dimensional works of art that reflects refined craftsmanship and technical skills" (CDE, 2004, p. 18). Level 1 represents four visual-arts teachers from two different Northern California high schools. Mr. Snyder (T1) and Ms. Rose (T2) teach in the same urban high school, whereas Mr. Tanaka (T4) and Ms. Wren (T3) teach in the same rural high school.

Portfolio Maturation Level 2 represented the portfolios at Level 2-Curriculum Vitae, student work was guided and arranged by educator-, department-, or institution-determined curriculum requirements or standards as measured by "The Criteria for Ascertaining Level of Maturation." The Level 2 portfolios contained evidence of the four visual-arts teachers' implementation of VA Standard "5.2 Prepare portfolios of their original works of art for a variety of purposes (e.g., review for postsecondary applications, exhibition, job application, and personal collection" (CDE, 2004, p. 121). Level 2 represents four visual-arts teachers from four different high schools in Northern California: two located in rural areas and two located in suburban areas. There was evidence to support that one teacher encouraged his beginning art classes to develop portfolios at Level 1 and he encouraged his advanced art students to develop portfolios at Level 2. For these reasons, Mr. Tanaka (T4) is included in Level 1 and Level 2.

Seven main findings emerged from the study. First, the visual-arts teacher's role was key; the depth of the students learning was linked directly to the visual-arts teacher's selection of instructional materials and time allotted for students to reflect and write

about their artwork. The visual-arts teachers who developed and implemented formal methods for their students to reflect upon his or her artwork and allotted instructional minutes for students to write about their individual artwork as an instructional strategy were able to develop his or her students' critical-thinking abilities at higher levels as measured by "The Criteria for Ascertaining Level of Students Reflections Upon Artwork and Critical-Thinking Skills Exhibited in Portfolios."

Second, the majority of the 44 students' portfolios did not contain examples of students' writing. Of the 44 portfolios, only 15 (34%) contained reflective-writing samples that were examined; of the 15, less than half of the writing samples demonstrated basic or below levels in students' ability to describe and to critique a selected artwork in their portfolio as measured by "The Criteria for Ascertaining Level of Students Reflections Upon Artwork and Critical-Thinking Skills Exhibited in Portfolios." Third, the majority of portfolios of student artwork were at low levels of maturation as measured by "The Criteria for Ascertaining Level of Maturation." The majority of the visual-arts teachers in this study encouraged their first-year art students to develop portfolios that contained every piece of artwork created over the course of the school year. The visual-arts teachers who aligned the portfolio requirements with IB or AP criteria as an instructional strategy encouraged their second-, third-, or fourth-year art students to develop portfolios that were at a higher stage of portfolio maturation as measured by "The Criteria for Ascertaining Level of Maturation" than the visual-arts teachers who did not provide portfolio criteria.

Fourth, instructional materials provided by three of visual-arts teachers that were similar to The Feldman (1993) Method and Ragans' (2000) model for art criticism that

ranged the continuum from less complex cognitive process to more complex cognitive processes.

Fifth, there is evidence to support that six of the seven visual-arts teachers in this study upheld the vision of The National Visual Arts Standards, Standard #5: "Reflecting upon and assessing the characteristics and merits of their work and the work of others" (The National Art Education Association, 1994). Each of the visual-arts teachers upheld The Visual- and Performing- Arts Framework for California Public Schools that clearly indicates "Teachers should provide students with a variety of opportunities to meet the content standards and help students prepare portfolios of their work" (CDE, p. 163).

Sixth, four of the five public high schools posted Expected School-Wide Learning Results (ESLRs) that contained a critical-thinking component. The instructional materials and the student reflective-writing samples were examined for evidence of less complex cognitive process categories: *Remember, Understand,* and *Apply* to more complex cognitive processes: *Analyze, Evaluate,* and *Create*. Five teachers' instructional materials required students to describe acceptable and unacceptable elements of their performance. Eleven students written reflections demonstrated the students' ability to evaluate their individual artwork and describe acceptable and unacceptable elements. Two students written reflections demonstrated the students' ability to analyze their individual artwork and describe how the elements of art and the principles of design were used to create the content of the art, mood, or theme of their individual artwork. There was evidence to support that all of the visual-arts teachers provided instructional materials of the category: *Create,* a more complex cognitive process. Seventh, although one or more computers were observed in every visual-arts classroom visited, there was little evidence of

technology implemented in the curriculum, there was evidence from course documents observed that of the two of the visual-arts teachers required their students to develop word-processed Artist's Statements to include in the portfolio. There was no evidence of digital, electronic portfolios, or webfolios observed in this study.

<div align="center">Limitations of the Study</div>

This study sought to explore the perceptions of secondary-level visual-arts teachers in Northern California who have facilitated student portfolios in grades 9 to12. Data collection was conducted in the Spring of 2008. Possible limitations to my study include the instruments, participant selection, participant characteristics, and the qualitative research methods.

During participant recruitment, over 200 public- and private-school visual-arts teachers in Northern California were invited (first via electronic mail and second via the United States Postal Service) to participate in this study. Many of visual-arts teachers invited to participate in this study may have not implemented portfolios with their students or may have been unmotivated or reluctant to participate in this study for reasons unknown to the researcher. I received eight responses via electronic mail and one response via the United States Postal Service that indicated interest in participating in my study.

The seven teachers who participated in the study were very hospitable and complied with the study requests. The sample size of five high schools, seven visual-arts teachers, 44 portfolios, and 15 written reflections exhibited in the portfolios are small. The number is sufficient, however, because the levels of reflection exhibited in the written reflections and the stages of maturation exhibited in the portfolios generally are

consistent. A diverse group of visual-arts teachers with respect to age, gender, and experience participated in the study and represented urban, suburban, and rural high schools in Northern California. The results, consistent with most qualitative studies, may be limited to this specific sample and not transferable the entire population of high-school visual-arts teachers and visual-arts students in Northern California.

For the purpose of this study, all of the visual-arts teachers and all of the visual-arts students who participated in this study were aware that I was examining portfolios of student artwork at the secondary level. Another possible limitation in this study was that six of the seven visual-arts teachers selected student portfolios for me to observe or recommended individual student portfolios for me to observe. The teachers' selection of individual students and portfolios may be attributed to the students who had obtained his or her parental permission for me to examine the portfolio and had returned the signed parental permission to the teacher.

Another possible limitation in this study may have been "The Criteria for Ascertaining Level of Students Reflections Upon Artwork and Critical-Thinking Skills Exhibited in Portfolios" instrument used to assess at what level students were able to reflect upon their artwork in the portfolio and that is aligned with The Feldman (1993) Method and Ragans' (2000) model involving description, analysis, interpretation, and evaluation. The seven visual-arts teachers who participated in the study may have been unfamiliar or uncomfortable with using either The Feldman Method and Ragans' textbook *ArtTalk* that is currently in use by thousands of art teachers and art students in the United States as an instructional framework to guide students' reflection upon their artwork. Five of seven visual-arts teachers in this study provided evidence of

instructional materials that were aligned with The Feldman Method and Ragans' model for art criticism that ranged the continuum from less complex cognitive process to more complex cognitive processes.

Last, the reproducibility (interrater reliability) demonstrated for "The Criteria for Ascertaining Level of Student Reflections Upon Artwork and Critical-Thinking Skills Exhibited in Portfolios" instrument was not established in this study. At this point in time, the instrument is not sufficiently reliable. Following the initial meeting with each independent judge in June, there was a 3-week delay in returning the student-writing samples and coding sheets to me. This time lapse may have resulted in less clear recall of previously agreed upon coding methods. After the student writing samples and coding sheets were returned to me, there was agreement between the researcher and two judges' scores. From the reliability analysis the following agreement levels resulted: 11/30 perfect agreement (37%), 13/30 one discrepancies (43%), and 6/30 two discrepancies (20%). I reexamined the students' written reflection and examined the evidence sited on the coding sheet by each of the judges in order to learn why the student-writing samples' scores were not in perfect agreement. In most cases, I sited evidence from the students' written reflection that was overlooked and not sited by one of the independent judges. Of the portfolios that contained examples of students' written work, most were handwritten short answers in response to questions printed on a handout by the teacher. The written reflection was evaluated using one or more of the student responses to questions posed by his or her teacher. The student artwork that was in the portfolios was not photographed. The written reflections were evaluated on face value due to the fact that the artwork the student was referring to in his or her reflective writing was not available as a reference.

All of the above-mentioned reasons contributed to the fact that the judges' ratings of students' writing samples were not above 70% perfect agreement. The level of reliability is not what was desired. At this point in time, I do not know if the instrument is reliable. In the future, "The Criteria for Ascertaining Level of Students Reflections Upon Artwork and Critical-Thinking Skills Exhibited in Portfolios" instrument needs to be simplified and the directions need to be clarified.

<div align="center">Discussion</div>

This study intended to examine the perceptions of secondary-school visual-arts teachers in Northern California who facilitated portfolios of student artwork as an instructional strategy by asking the question, "How do visual-arts teachers encourage students to reflect upon and assess the characteristics and merit of their artwork exhibited in portfolios in secondary visual-arts courses?" Second, this study intended to measure students' written reflections upon the evolving quality of their artwork exhibited in their portfolios by asking the question, "To what extent do the portfolios contain evidence of students' self-reflection and critical-thinking abilities?" Believing that developing portfolios contributed to students' self-reflection skills and the development of critical-thinking abilities, I observed classrooms, interviewed visual-arts teachers, examined course documents, evaluated portfolios, assessed to what extent the portfolios contained evidence of students' self-reflection and critical-thinking abilities, and specified the current levels of portfolio implementation. The results of this study indicated that the visual-arts teacher's role was critical; the depth of the students' learning was linked directly to the visual-arts teachers' selection of instructional methods, materials, and minutes devoted to reflection and writing about artwork.

The results from this study in response to the first question, "How do visual-arts teachers encourage students to reflect upon and assess the characteristics and merit of their artwork exhibited in portfolios in secondary visual-arts courses?" are that two instructional strategies emerged from the data; the visual-arts teachers indicated that they monitored students' judgments about the quality and success of their artwork using formal or informal approaches. Informal methods appeared as questions and group discussions, students responding to their own two-dimensional or three-dimensional works of art or that of other students. Formal methods appeared as instructional materials with questions posed by the teacher to be answered by the students in written form responding to their individual artwork at the end of a project or the end of the semester.

Less than half of the 44 portfolios (34%) contained evidence of the students' writing. Five of the seven visual-arts teachers (71%) provided evidence of student written reflection upon their artwork. The instructional materials developed by the visual-arts teachers ranged the continuum of Taxonomy Table (Anderson et al., 2001) resulting in different levels students' critical-thinking abilities as measured by the reflection criteria as indicated in Table 3 in Chapter III. The findings indicated that two of the seven visual-arts teachers (29%) had developed and implemented effective instructional materials and that their students were able to critique their artwork at proficient or advanced levels as measured by "The Criteria for Ascertaining Level of Students Reflections Upon Artwork and Critical-Thinking Skills Exhibited in Portfolios." An explanation of this inconsistency might be as a result of the differences in visual-arts teachers' instructional methods and the amount of instructional minutes allotted to hands-on studio-art production and the amount of instructional minutes allotted to writing about artwork.

Consequently, what students learn about art is quite different. In this study, the visual-arts teachers' instructional methods differed. The students from four of the visual-arts teachers' (T2, T5, T6, T7) classes were able to demonstrate self-reflection and critical-thinking abilities at higher levels than the students from the other teacher's classes. Another explanation of the differences may be related to different instructional methods implemented by the visual-arts teachers in this study.

Three instructional strategies emerged that visual-arts teachers employed to assist students in developing portfolios of artwork. First, the majority of the 44 portfolios observed in this study were large paper folders that contained all of work (notes, sketches, rough drafts, preliminary drawings, drawings, or paintings) created as course assignments during the Fall 2007 and Spring 2008 semesters. All of visual-arts teachers encouraged their first-year art students to keep all of their art projects (sketches, rough drafts, notes, work-in-progress, and finished work) in a portfolio. Second, five of the seven visual-arts teachers encouraged his or her students to keep all of the art projects in a folder and select only the best finished works or a series of best works as a portfolio strategy. Third, four of visual-arts teachers had the students who had completed one or more art courses and currently were enrolled in an Advanced Art, Advanced Placement Studio Art, or International Baccalaureate art course. Although differences existed between the IB and the AP portfolio requirements, the teachers utilized the external assessment procedure that is common of both programs to evaluate the student work. As an instructional strategy, three of the visual-arts teachers (T4, T6, T7) encouraged their second-, third-, or fourth-year art students to develop portfolios that were aligned closely with the Advanced Placement Studio Art portfolio requirements. The Advanced

Placement Studio Art visual-arts teachers allotted more instructional minutes to hands-on studio-art production than to writing about student artwork. One of the visual-arts teachers' (T5) portfolio criteria was aligned with the International Baccalaureate requirements. The International Baccalaureate visual-arts teacher allotted instructional minutes to hands-on studio-art production and to writing about student artwork. Each of the IB portfolios contained a statement that briefly described the students' growth and development as an artist, and 20 pages photocopied from their research workbook that provided evidence of students' thinking critically as an instructional strategy.

The portfolio examination provided evidence of 44 portfolios at low levels (Levels 1 and 2) of portfolio maturation consistent with the skills identified by Love et al. (2004). I determined that four visual-arts teachers in Portfolio Maturation Level 1 provided little or no evidence of portfolio criteria. The portfolios supported the VA Standard "2.2 Prepare a portfolio of original two-and three-dimensional works of art that reflects refined craftsmanship and technical skills" (CDE, p. 118). In contrast, I determined that the visual-arts teachers in Portfolio Maturation Level 2 provided evidence of portfolio criteria. I assessed that the portfolios had evidence of VA Standard "5.3 Prepare portfolios of their original works of art for a variety of purposes (e.g., review for postsecondary applications, exhibition, job application, and personal collection" (CDE, 2004, p. 121). In general, the students' portfolios were meeting the visual-arts teachers' expectations. I determined that there was no evidence to support that the visual-arts teachers in this study had set higher portfolio expectations and provided opportunities for their students to engage in reflection upon their individual artwork at a deeper level.

In this study, I did not classify any portfolios at Portfolio Maturation Levels 3 to 5. Two visual-arts teachers encouraged students to comment on the artwork of other students, there was little or no feedback or comments on the artwork from the visual-arts teachers. I determined that there was little or no communication and collaboration between the teacher and the student in developing the portfolio. Students' work samples were not arranged according to a curricular framework, program standards, or both. Students did not have multiple opportunities to redeem his or her artwork. The visual-arts teachers did not provide students with context by adding syllabi, assignments, Internet resources, and assessment rubrics. There were no opportunities for students to develop either *e*-Portfolios or webfolios. For all of these reasons, there were no evidence of portfolios at Portfolio Maturation Levels 3 to 5 in this study.

There were one or more computers in the visual-arts classrooms that I observed in this study. I saw no implementation of either *e*-Portfolios or webfolios. Technology offers the potential for students to reflect upon their artwork, to think critically, and to develop portfolios in a variety of formats. It is important for secondary visual-arts teachers to encourage their students to create original works of art, to reflect upon their evolving artwork, and to develop portfolios at higher levels of portfolio maturation consistent with the skills identified by Love et al. (2004).

The results from this study in response to the second question, "To what extent do the portfolios contain evidence of students' self-reflection and critical-thinking abilities?" indicated that of the 15 reflective-writing samples examined less than half of the writing samples demonstrated basic or below levels in students ability to describe and to critique a selected artwork in their portfolio (see Table 3 in Chapter III). An explanation of this

inconsistency might be a result of the differences in the visual-arts teachers' instructional methods. Some of the visual-arts teachers allotted more instructional minutes to hands-on studio-art production rather than to writing about student artwork. Six of seven visual-arts teachers facilitated self-reflection and critical thinking as an instructional strategy and provided their students with class time and materials for reflection. The instructional materials developed by four of visual-arts teachers were similar; questions about the artwork posed by the teacher and required the students' handwritten short answers on a handout. Six of visual-arts teachers facilitated instructional materials and provided student reflective writing samples that supported evidence of less complex cognitive process categories of *Remember, Understand,* and *Apply* to more complex cognitive processes of *Analyze, Evaluate,* and *Create (*Anderson et al., 2001).

Previous studies of portfolio development as a performance assessment tool (Blaikie, Schonau, & Steers, 2004; Dorn, 2003; Dorn, Madeja, & Sabol, 2004; Dorn & Sabol, 2006; Pereira de Eca, 2005) have concluded that portfolios are viable alternatives to paper-and-pencil tests in art assessment in grades kindergarten to 12th grade (K to 12). Dorn et al. indicated that visual-arts teachers found the elements of art and the principles of design were essential for developing their students' understanding of the basic means of communication and production of work in the visual arts. Dorn and Sabol's assessment scoring results indicated that the judges had a high level of agreement. The conclusions made by Dorn and Sabol suggest that secondary-school visual-arts teachers could be trained to evaluate secondary-school students' portfolios and produce reliable measure of student achievement in the visual arts.

In this study, "The Criteria for Ascertaining Level of Students Reflections Upon Artwork and Critical-Thinking Skills Exhibited in Portfolios" instrument used to determine what level students were able to describe their work of art using the vocabulary of the visual arts, the elements of art, and the principles of design supported Dorn et al. findings. The evaluation instrument in this study included the size of the artwork, the medium used, the processes or techniques used to create the artwork, and the subject matter that was aligned closely with The Feldman (1993) Method and Ragans' (2000) 4-step process. In this study, the assessment scoring results indicated that the researcher and two independent judges did not have a high level of agreement, based on "The Criteria for Ascertaining Level of Students Reflections Upon Artwork and Critical-Thinking Skills Exhibited in Portfolios" instrument used to determine what level students were able to describe their work of art. Pereira de Eca (2005) remarked that some teachers indicated that they were overloaded by the portfolio experience. In contrast, the visual-arts teachers in this study did not consider the portfolio experience as a negative experience.

Blaikie et al. (2004) found curriculum policies in Canada, England, and the Netherlands required teachers to engage their students in reflective critiques of art and design, an important process that reveals much about the students' thinking and progress. In addition, the portfolios for studio-art and design students in Canada and the Netherlands often contained reflective and explanatory written data. The assessment procedure is the judgment of a visiting examiner. Similarly, in this study, Mr. Tanaka (T4) and his Advanced Placement Studio Art students engaged in lively group critiques. Ms. Gomez (T5) implemented the International Baccalaureate set of requirements that call for students to reflect upon their artwork, to identify artwork in their portfolios, to

use the language of art to describe the artwork, and to identify media, to describe

problems, and to indicate achievements in written form. The IB materials were designed

to request students to respond to very specific questions about their artwork and required

each student to develop an "Artist Statement" in response to the prompts. This

assessment procedure is common of schools participating in external assessment

programs such as the International Baccalaureate and Advanced Placement Studio Art.

Although differences existed between the IB and the AP portfolio requirements and each

of the visual-arts teachers' instructional approaches, four of the teachers provided

evidence of instructional materials that upheld The National Visual Arts Standards,

Content Standard "5. Reflect upon and assess the characteristics and merit of their work"

(The National Visual Arts Standards, 1994).

Barrett (2007) found that the teacher's role was critical to success of the portfolio

project and suggested that the teachers who understood reflection and metacognition

were able to provide feedback to their students. Similarly, in this study, the visual-arts

teacher's role was essential; the depth of the students' learning was linked directly to the

visual-arts teacher's selection of instructional methods and appropriation of instructional

minutes. In this study, the students who received instructional time and materials from

their visual-arts teacher demonstrated self-reflection and critical-thinking skills at higher

levels as measured by the "The Criteria for Ascertaining Level of Students Reflections

Upon Artwork and Critical-Thinking Skills Exhibited in Portfolios."

Juneiwicz (2003) suggested that national, state, or local standards potentially

could provide a framework to focus the portfolio process on developing the life-long

skills students' need in the real world. In this study, I examined portfolios for evidence

of students' self-reflection skills and critical-thinking abilities developed in visual-arts

classes at the secondary level as proof that visual-arts teachers uphold The National

Visual Arts Standards (1994) vision of what students should know and be able to do,

specifically, "Content Standard #5: Reflecting upon and assessing the characteristics and

merits of their work and the work of others." In this study, there was evidence to support

that the visual-arts teachers had developed students' self-reflection skills and critical-

thinking abilities as exhibited in the portfolios and the teachers upheld The National

Visual Arts Standards.

Shin (2002) focused on the effectiveness of a metacognitive art-criticism teaching

strategy with 15 high-school graphic-arts students in grades 9 through 12. Shin found that

the students in his study displayed positive responses toward the Internet research

activities and the use of interactive multimedia and that the instructional technology

played an important role in visual-arts instruction. In this study, I examined portfolios for

evidence of students' self-reflection skills and the development of critical-thinking skills

with and without instructional technology. In this study, I did not observe that the visual-

arts teachers had implemented instructional technology in the development of portfolios

in visual-arts courses at the secondary level.

As Lampert (2005) noted, one of the key components of an art student's

experiences is the studio critique, the "discussion of the strengths, weaknesses, successes,

and failures of their own work" (p. 224). Lampert's (2005) study indicated that studying

the arts builds strengths in several critical-thinking dispositions and provides evidences

that the arts enhance the disposition to think critically. Her research is valuable in

showing the relationship between the effects of visual-arts instruction and critical

thinking. In this study, I explored visual-arts teacher's instructional approaches to developing his or her students' opportunities to reflect upon their individual artwork, examined students' written reflections upon their individual artwork, and provided evidences that visual-arts instruction at the secondary level provides opportunities for students to think critically.

This study builds upon the knowledge base to which the visual-arts programs were being implemented in California public schools (California Department of Education, 2001; Woodworth et al., 2007) from a unique perspective. This study represents the first preliminary investigation of visual-arts teachers who facilitated portfolios of student artwork, encouraged students to reflect upon their artwork, and upheld the VA Standards specifically component strands: "2.2 Prepare a portfolio of original two- and three-dimensional works of art that reflects refined craftsmanship and technical skills" (p. 118), "4.4 Articulate the process and rationale for refining and reworking one of their own works of art" (p. 120), "4.6 Develop written criteria for the selection of a body of work from their portfolios that represents significant achievements" (p. 120), and "5.3 Prepare portfolios of their original works of art for a variety of purposes (e.g., review for postsecondary applications, exhibition, job application, and personal collection" (CDE, 2004, p. 121).

<div align="center">Implications for Educational Practice</div>

The findings in this study contribute to the research on self-reflection and the factors that promote students' critical-thinking in visual-arts courses at the secondary level. The results of this study suggest several implications for visual-arts educational practice at the secondary level. The challenge set before visual-arts teachers is to develop

art projects that not only will challenge students to expand art-content knowledge, to explore their creative skills, to develop students critical-thinking abilities, and to encourage students to preserve their artwork in a traditional, digital, or webfolio formats. The findings in this study also contribute to the research on portfolio development in visual-arts courses at the secondary level. The portfolio examination indicated that visual-arts teacher's instructional methods to develop and implement student portfolios were at low levels of portfolio maturation consistent with the skills identified by Love et al. (2004). The majority of visual-arts teachers encouraged his or her students to keep all of their art projects (sketches, rough drafts, notes, work-in-progress, and finished work) in a folder. Three of visual-arts teachers' portfolio instructional methods were aligned closely with the AP portfolio requirements. One of visual-arts teachers' portfolio instructional methods was aligned with the IB requirements.

Although there were one or more computers in each of the visual-arts classrooms that I observed in this study, none of the visual-arts teachers had implemented instructional technology in the development of portfolios in this study even though all seven of the visual-arts teachers in this study demonstrated their ability to communicate with me by e-mail over the course of the Spring 2008 semester. Two of the visual-arts teachers (T5 & T7), however, encouraged their students to develop word-processed Artist's Statements. One visual-arts teacher (T7) encouraged his students to include digital photographs of their artwork in the portfolio. These visual-arts teachers need to move beyond this minimal use of technology and implement instructional technology for the development student *e*-Portfolios or webfolios.

The College Board is "preparing for a transition to a digital, web-based submission process for the AP Studio Art portfolio sections that have traditionally required slides (College Board, 2008, p. 5). This transition "could take place as early as the 2008-09 school year and impact 2009 AP Studio Art portfolio evaluations" (p. 5). Due to this change in the AP Studio Art portfolio submission process, AP visual-arts students will be required to develop and submit AP Studio Art digital portfolios. In order for the visual-arts students to comply with the web-based submission process for the AP Studio Art portfolio, the visual-arts teachers need to implement instructional technology for the development of AP portfolios. The implications of the AP Studio Art portfolio changing from slides to digital submission may be the single most important factor that will contribute to the development of student portfolios at higher levels of portfolio maturation consistent with the skills identified by Love et al. (2004) in the 2008-09 school year.

Due to the change in the AP Studio Art portfolio submission process in the 2008-09 school year, visual-arts teachers will be challenged to implement instructional strategies for students to comply with the web-based submission requirements of the AP Studio Art portfolio. The implementation of *e*-Portfolios as an instructional strategy will contribute to the development of student portfolios at higher levels of portfolio maturation consistent with the skills identified by Love et al. (2004): Level 3—Curriculum Collaboration Between Student and Faculty, Level 4—Mentoring Leading to Mastery, and Level 5—Authentic Evidence as the Authoritative Evidence for Assessment.

As traditional classrooms expand into digital environments, Boughton (2004) advised educators to explore alternative forms of assessment such as digital or electronic portfolios (*e*-Portfolios) to encourage imaginative ideas and reflective insight among students. An *e*-Portfolio is a collection of student work that can be created easily, accessed, and enhanced with the use of sound, music, and images to represent and convey information for a variety of purposes. An *e*-Portfolio can include digitized pieces of student work, not approximations supplied by a score on a standardized test. Developing an *e*-Portfolio requires each student's active participation to demonstrate his or her mastery of art content knowledge and creative skills by documenting their own work using text, images, and sounds. An *e*-Portfolio can provide evidence of art subject-matter proficiency and of the student's ability to utilize technological resources to communicate effectively. Class collections of *e*-Portfolios can be reproduced on CDs to share with a larger audience outside of the classroom. The *e*-Portfolio is authentic to real-world demands, opportunities, and constraints. Many educational institutions as well as employers review portfolios to gain insight into the candidate's academic, artistic, or personal qualities.

The implementation of webfolios as an instructional strategy will contribute to the development of student portfolios at higher levels of portfolio maturation consistent with the skills identified by Love et al. (2004). Webfolios are portfolios that are posted on the World Wide Web. According to Love et al., webfolios promise to be a viable alternative to current, high-states testing. Love et al. concurred that implementing webfolios is a complex task. The authentic data to be collected, synthesized, and analyzed must come from students and teachers working collaboratively to enhance teaching and

learning through the use of webfolios. Students need to demonstrate their content knowledge and skills, think critically about how they can present the evidence of their competence, and demonstrate technology skills by creating a webfolio. Unlike traditional portfolios, webfolios provide easy access for students and faculty to exchange feedback during the process of development, rather than at the end of the project.

<div align="center">Recommendations for Future Research</div>

Little research has been conducted on visual-arts teachers' approaches to students' portfolio development, self-reflection, and critical-thinking abilities in the visual arts, especially at the secondary level. Clearly from this study, a more comprehensive understanding of the importance of visual-arts teachers' instructional methods and materials that encourage students to create art, to assess their artwork, and to develop portfolios and the importance of critical thinking emerged from the data. Data analysis points to several areas where future research is needed.

One of the instruments from this study, "The Criteria for Ascertaining Level of Student Reflections Upon Artwork and Critical-Thinking Skills Exhibited in Portfolios" could have an impact in measuring levels of critical thinking in the visual arts instead of standardized tests to measure critical thinking. Students written reflections upon their artwork exhibited in their portfolio can be used to demonstrate self-reflection skills and critical-thinking abilities early in the semester and again at the end of the semester, demonstrating the development of higher levels over time. Future researchers may wish to refine the evaluative instrument from this study, "The Criteria for Ascertaining Level of Student Reflections Upon Artwork and Critical-Thinking Skills Exhibited in Portfolios," by clarifying and aligning the instrument with the cognitive process

categories developed by Anderson et al. (2001) and to develop assessment tasks that progress from less complex cognitive process categories of *Remember, Understand*, and *Apply* to more complex cognitive processes of *Analyze, Evaluate*, and *Create*.

Based on my experience as a secondary visual-arts teacher for over 25 years, I recommend future researchers use an experimental design with two classes of visual-arts students at the secondary level. The treatment group would participate in an instructional unit for 6 weeks, two class periods per week, and the control group would remain in the regular visual-arts class. Students in both groups would complete identical pretests and posttests. For data analysis, the difference between the treatment group and the control group would be investigated.

The treatment group and the control group would participate in a study that investigates the development of critical-thinking skills and the use of structured-written reflections and that encouraged students to explore their experiences after completing each art project. First, students in both groups would complete identical pretests. Second, the treatment group would maintain a portfolio of their best artwork in order to develop art-content knowledge, creative skills, and critical-thinking abilities. The treatment group would be provided with time to reflect upon their artwork and with instructional materials aligned with The Feldman (1993) Method or Ragans' (2000) process and the Taxonomy Table hierarchy that orders cognitive process from less-complex cognitive-process categories of *Remember, Understand,* and *Apply* to more complex cognitive processes of *Analyze, Evaluate,* and *Create* (Anderson et al., 2001). The teacher would provide the treatment-group students with opportunities (written or oral) to describe their artwork. At this step, each student would describe the work of art using the vocabulary of the visual

arts to express his or her observations that included the size of the artwork, the medium used, the processes or techniques used to create the artwork, and the subject matter (figures, animals, objects, etc.). At this stage, the instructional activities can be used to facilitate less complex cognitive process categories: remembering, understanding, and applying.

When the majority of the treatment-group students are at proficient or above levels in describing their artwork as measured by "The Criteria for Ascertaining Level of Students Reflections Upon Artwork and Critical-Thinking Skills Exhibited in Portfolios" (Appendix A), the teacher would introduce the treatment group to critiquing artwork. After competing an art project, in addition to describing the artwork, the treatment-group students would be would select an example of artwork in their portfolio and critique the select artwork that included acceptable elements and unacceptable elements of their artwork. When the majority of the treatment-group students are at proficient or above level in critiquing their artwork, the teacher would introduce the treatment group to the last segment of the process, that is, the treatment-group students would describe the challenges that arose during the creation of a selected piece and discuss what changes they would make if given the opportunity to redo the artwork. At this stage, the instructional activities can be used to facilitate more complex cognitive process categories: analyzing, evaluating, and creating. The utility of the method described for visual-arts teachers to guide the treatment-group participants' reflection upon their artwork throughout the instructional unit may contribute to the development of higher levels of the treatment group art-content knowledge, creative skills, and critical-thinking abilities. Through self-reflection, the treatment-group students would integrate what they

have learned not only in the visual arts but also across the curriculum. Participation in the treatment group may help students to develop reflective-thinking skills and critical-thinking abilities in order to analyze their artwork and make changes in a future performance. Looking back at an entire body of artwork may help the treatment group and the teacher to evaluate how much learning and growth have occurred over time. Writing out thoughts, would allow the treatment group time to clarify their understandings and reflect upon their artwork. One of the benefits for students participating in the treatment-group participants would be the additional time and materials to help students think critically about their artwork, identify acceptable and unacceptable elements of their artwork, and suggest changes for the future. Last, students in both groups would complete identical posttests.

Additional research with larger samples may be valuable to explore whether or not the students' gender or language or age differences not identified in this study may contribute to students' self-reflection and critical-thinking abilities. Notwithstanding this study's findings, there remain additional questions on portfolio criteria or portfolio models that effectively demonstrate what students know and can do in the visual arts at the secondary level. Further studies are needed to investigate whether the visual-arts teachers at the secondary level in California are "helping students prepare portfolios of their work for personal use, for use in applying to postsecondary institutions, or for career presentations and exhibitions" (CDE, 2004, p. 163) and why portfolio maturation levels are low in secondary visual-arts courses in California.

"The Criteria for Ascertaining Level of Maturation" (Appendix C; Love et al., 2004) utilized on this study to measure the levels of portfolio maturation could have an

impact in measuring levels of portfolio development in the visual arts at the secondary level. For example, the majority of the portfolios observed in this study were large paper folders that contained all of the two-dimensional art assignments created during the Fall 2007 and Spring 2008 semesters. Students artwork exhibited in their portfolio can be used to demonstrate what students know and can do early in the semester and again at the end of the semester, providing a visual of development of portfolio maturation over time. If properly structured, portfolio development is an effective instructional strategy that promotes students' reflective-thinking skills, develops students' critical-thinking abilities, and provides a more complete picture of student performance that can be difficult to measure on standardized tests. There remain additional questions on portfolio criteria or portfolio models that effectively demonstrate what students know and can do in the visual arts at the secondary level. Further studies are needed to investigate if the visual-arts teachers at the secondary level in California are "helping students prepare portfolios of their work for personal use, for use in applying to postsecondary institutions, or for career presentations and exhibitions (CDE, 2004, p. 163) and why portfolio maturation levels are low in secondary visual-arts courses in California.

There was evidence of one or more computers in the visual-arts classrooms that I observed in this study yet there was no evidence of either *e*-Portfolios or webfolios observed. There was evidence to support the implementation of technology in visual-arts courses. Two of the visual-arts teachers (T5 & T7) encouraged their students to develop word-processed Artist's Statements. One visual-arts teacher (T7) encouraged his students to include digital photographs in the portfolio. Further studies are needed to investigate how the visual-arts teachers are utilizing technology in secondary visual-arts courses in

California. How can visual-arts teachers move teaching and learning from word-processed documents with digital photographs to the development of *e*-Portfolios or webfolios? Are there professional-development opportunities offered on site that support teachers implementing technology across the curriculum? Due to the change in the AP Studio Art portfolio submission process, what instructional strategies have visual-arts teachers developed and implemented for students to submit AP Studio Art digital portfolios? Due the AP Studio Art digital portfolio submission process, are there more portfolios developed and submitted? Due to the AP Studio Art portfolio digital submission process, are AP Studio Art portfolio scores at higher levels than with the AP Studio Art portfolio slide submission process? To comply with the web-based submission process for the AP Studio Art portfolio, the visual-arts teachers need to implement instructional technology help students develop portfolio that meet the AP requirements in the 2008-09 school year.

Neither The California Content Standards for the Visual Arts nor The National Visual Arts Standards were posted in any of the classrooms observed in this study. Further studies are needed to investigate if secondary visual-arts teachers in California are familiar with or upholding either The California Content Standards for the Visual Arts or The National Visual-Arts Standards and whether or not upholding the standards is connected with critical-thinking skills of students. Further studies are needed to assess whether the visual-arts teachers are providing "students with a variety of opportunities to meet the content standards" (CDE, 2004, p. 163).

In four of the five high schools that I observed, Expected Student Learning Results (ESLR) were posted that contained a critical-thinking component. Less than half

of the portfolios examined in this study contained evidence of the students' writing. Further studies are needed to investigate how visual-arts teachers uphold the ESLR critical-thinking component. Do visual-arts teachers provide a continuum of lower order to higher order teaching and learning approaches? How can visual-arts teachers move teaching and learning from a shallow understanding of art to the development of deeper levels of student's art-content knowledge, creative skills, and critical-thinking abilities? Are there professional-development opportunities offered at schools that help all teachers cultivate critical-thinking skills across the curriculum?

Conclusions

This qualitative study contributed to the understanding of the perceptions of secondary-school visual-arts teachers in Northern California who facilitated portfolios of student artwork. Recognizing the impact of the portfolio development process as an instructional strategy that promotes students' reflective-thinking skills and critical-thinking abilities, this study examined students' written reflections upon the evolving quality of their artwork exhibited in their portfolio. I observed a variety of visual-arts classrooms, interviewed seven visual-arts teachers, examined and evaluated 44 portfolios created by secondary visual-arts students representing five high schools in Northern California in the Spring of 2008 to investigate to what extent do the portfolio contained evidence of students' self-reflection and critical-thinking abilities.

The qualitative aspect of this study created a unique look at secondary visual-arts teachers, students, and classrooms in Northern California. The visual-arts teachers' narratives, course documents, and portfolios of student artwork indicated a myriad of opportunities for students to develop art-content knowledge, creative skills, self-

reflection, and portfolios. Four secondary visual-arts teachers who facilitated self-reflection and critical thinking as an instructional strategy provided their students with time for reflection and with instructional materials that included questions about the artwork, their students were able to demonstrate self-reflection and critical-thinking abilities at higher levels than the students who did not receive guided questions from their teacher. The role of the visual-arts teacher and his or her instructional methods and materials were central to promoting students' self-reflection and critical-thinking abilities and, therefore, essential for students to assess the characteristics and merit of their artwork.

This work is important because it provided a first look at the development of students' self-reflective skills and critical-thinking abilities exhibited in portfolios of student artwork at the secondary level in Northern California. The findings of this study contribute to the greater understanding of portfolios through the examination of student portfolios, written reflections, and of visual-arts teachers' strategies to enhance students' self-reflection skills and critical-thinking abilities in visual-arts courses. The findings provide a valuable resource to visual-arts teachers who are interested in developing students' critical-thinking skills and implementing portfolios to preserve student artwork in a traditional, digital, or webfolio format. At this time, there are no instructional strategies for visual-arts teachers interested in developing either students' portfolios or self-reflection skills or critical-thinking abilities at the secondary level included in The Visual- and Performing-Arts Framework for California Public Schools (CDE, 2004).

Afterword

The research project presented here was an effort to fill the gap in the literature regarding students' reflection upon their artwork and to provide evidence of the importance of portfolios for assessing what students know and are able to do in the visual arts. The findings from this study provided information about secondary-school visual-arts teachers in Northern California who have facilitated portfolios of student artwork and explored students' reflections upon the artwork exhibited in their portfolio. In my opinion, the project was successful in the each category. My experience with this study deepened my own understanding of the pivotal role of the visual-arts teacher in developing students' art-content knowledge, creative skills, critical-thinking abilities, and of the importance of portfolios for assessing what students know and are able to do in the visual arts. All four parts of the process are necessary for students to learn about art, to create art, to respond to art, and to preserve their artwork. As a secondary-school visual-arts teacher, I am more intrigued that ever in designing opportunities for my students to learn about art, to create art, to respond to art, and to develop portfolios to display their unique skills and creative achievements in traditional, digital, and webfolio formats.

It is my hope that the results of my study may lead to the development of explicit portfolio criteria that encourage students' written reflections upon the merits of their artwork that are aligned with The California Content Standards for the Visual Arts in grades 9 through 12. By developing explicit portfolio criteria and assessment tools aligned with the VA Standards in grades 9 through 12, students, teachers, schools, and districts can provide evidence of art-content knowledge and creative skills. It is important to measure individual student progress and to gauge the degree to which a student,

school, or district has met the VA Standards and to provide students, teachers, visual-arts

departments, and school districts with opportunities for acknowledging strengths,

recognizing areas for improvement, setting goals, and achieving milestones.

REFERENCES

American Psychological Association. (2002). Ethical principles of psychologists and code of conduct. Retrieved on July 23, 2007, from http://www.apa.org/ethics/code2002.html

Anderson, L., Krathwohl, D., Airasian, P., Cruikshank, K., Mayers, R., Pintrich, P., et al. (2001). *A taxonomy for learning, teaching and assessing: A revision of Bloom's taxonomy of educational objectives.* New York: Longman.

Banta, T. (2003). *Portfolio assessment uses, cases, scoring and impact.* Assessment Update Collections. San Francisco: Jossey-Bass.

Barrett, H. (2006). Using electronic portfolios for classroom assessment. *Connected Newsletter*, 13 (2), 4-6.

Barrett, H. (2007). Researching electronic portfolios and learner engagement: The REFLECT initiative. *Journal of Adolescent & Adult learning, 50* (6), 436-449.

Blaikie, F., Schonau, D., & Steers, J. (2003). Students' gendered experiences of high school portfolio art assessment in Canada, England and The Netherlands. *Studies in Art Education, 44*, 335-349.

Blaikie, F., Schonau, D., & Steers, J. (2004). Preparing for portfolio assessment in art and design: a study of the opinions and experiences of exiting secondary school students in Canada, England and The Netherlands. *International Journal of Art and Design Education, 23*, 302-315.

Bloom, B.S. (1956). *Taxonomy of Educational Objectives*. Boston: Allyn and Bacon.

Bogdan, R.C., & Biklen, S.N. (2003). *Qualitative research for education: An introduction to theories and methods.* Boston: Allyn and Bacon.

Boughton, D. (2004). The problem of seduction: Assessing visual culture. *Studies in Art Education, 45*, 265-269.

Brown, J., McCrink, C., & Maybee, R. (2003, April). *What employers want: How portfolio development fosters leadership and critical thinking in the workplace.* Paper presented at the Annual Meeting of the American Education Research Association, Chicago.

California Department of Education. (2000). *Content Standards for the Visual and Performing Arts.* Sacramento, CA: Curriculum Development and Supplemental Material Commission.

California Department of Education. *(*2001). *The Results of the Arts Work Survey of California Public Schools*. Sacramento, CA: Curriculum Development and Supplemental Material Commission.

California Department of Education. (2004). *Visual and Performing Arts Framework for California Public Schools, Kindergarten through Grade Twelve*. Sacramento, CA: Curriculum Development and Supplemental Material Commission.

College Board. (2008). Studio art course description. Retrieved September 21, 2008, from http://www.collegeboard.com/student/testing/ap/sub_studioart.html

Dorn, C. (2003). Models for assessing art performance (MAAP): A K-12 project. *Studies in Art Education*, *44*, 350-370.

Dorn, C., Madeja, S., & Sabol, F. R. (2004). *Assessing expressive learning a practical guide for teacher-directed authentic assessment in K-12 visual arts education*. Mahwah, NJ: Lawrence Erlbaum Associates.

Dorn, C., & Sabol, F.R. (2006). The effectiveness and use of digital portfolios for the assessment of art performances in selected secondary schools. *Studies in Art Education A Journal of Issues and Research, 47*, 344-362.

Elementary and Secondary Education Act of 2001, Pub. L. No. 107- 110, (2001).

Feldman, E. (1993). *Practical art criticism*. New York: McGraw Hill.

Goals 2000: Educate America Act of 1994, Pub. L. No. 103-227, (1994).

Harper, N.R. (2008). Influencing k-12 art programs: A biographical look at Arttalk author, Rosalind Ragans. *The Journal of the National Art Education Association*, *61*, pp. 47-50.

Juneiwicz, K. (2003). Student portfolios with a purpose. *The Clearing House*, *77* (2), 73-77.

Kish, C., Sheehan, J., Cole, K., Struyk, L., & Kinder, D. (1997, April/May). Portfolios in the classroom: A vehicle for developing reflective thinking. *The High School Journal*, pp. 245-260.

Kowalchuk, E. (1999, November). Recognizing and using higher order approaches to teaching art. *Art Education*, pp. 13-18.

Lampert, N. (2006). Critical thinking dispositions as an outcome of art education. *Studies in Art Education,* 2006, *47* (3), 215-228.

Love, D., McKean, G., & Gathercoal, P. (2004). Portfolios to webfolios and beyond: Levels of maturation. *Educause Quarterly*, *27* (2), 24-37.

Love, D., McKean, G., & Gathercoal, P. (2007, April). *Webfolios in teacher education: Teacher performance expectations and teaching performance assessments-present and future.* Paper presented at the American Educational Research Association Annual Meeting, Chicago.

Meale, M.S. (2005). *The effect of goal setting, self-evaluation and self-reflection on student art performance in selected 4th and 5th grade visual art classes.* (Doctoral dissertation, Florida State University, 2005). Retrieved from http://etd.lib.fsu.edu/theses/available/etd-04122005-001818/

Merriam, S. (1998). *Qualitative research and case study applications in education.* San Francisco: Jossey-Bass.

National Art Education Association. (1994). *The National Visual Arts Standards*. Education Reston, VA: National Art Education Association.

National Commission on Excellence in Education. (1983). *A Nation at Risk*. Retrieved July 23, 2005, from http://www.ed.gov/pubs/NatAtRisk/risk.html

National Endowment for the Arts. (1988). *Toward Civilization; A report on arts education.* Washington, DC: US Government Printing Office.

Patton, M.Q. (1980). *Qualitative Evaluation Methods*. Beverly Hills, CA: Sage Publications.

Pereira de Eca, M. (2005). Using portfolios for external assessment: An experiment in Portugal. *International Journal of Art & Design Education, 24*, 209-218.

Popham, W.J. (2000). *Testing! Testing! What every parent should know about school tests.* Boston: Allyn & Bacon.

Popham, W.J. (2001). *The truth about testing: An educator's call to action*. Reston, VA: Association for Supervision and Curriculum Development.

Powell, D. (2002, Winter). No subject left behind. *Creative Education Quarterly*, 018.

Ragans, R. (2000). *ArtTalk*. Woodland Hills, CA: Glencoe/McGraw-Hill.

Sabol, F.R. (2006, November). Identifying exemplary criteria to evaluate studio products in art education. *Art Education*, pp. 6-11.

Sabol, F.R. (1994). *Research methods and methodologies for art education*. Reston, VA: The National Art Education Association.

Shin, S.R. (2002). The effects of metacognitive art criticism teaching strategy that incorporates computer technology on critical thinking skill and art critiquing ability. *Dissertation Abstracts International*, 63/11 (UMI No. 3037012)

U. S. Department of Education. (1983). *A Nation at Risk*: *The imperative for educational reform: A report to the Nation and the Secretary of Education, United States Department of Education.* Washington, DC: The National Commission of Excellence in Education.

Wiggins, G. (1998). *Educative assessment. Designing assessments to inform and improve student performance*. San Francisco: Jossey-Bass.

Woodworth, K. R., Gallagher, H. A., Guha, R., Campbell, A. Z., Lopez-Torkos, A. M., and Kim, D. (2007) *An unfinished canvas. Arts education in California: Taking stock of policies and practices*. Summary Report. Menlo Park, CA: SRI International. Retrieved July 23, 2007, from http://www.sri.com/policy/cep/edreform/ArtsEd.html

APPENDIXES

Appendix A

Criteria for Ascertaining Level of Students Reflections Upon Artwork
and Critical-Thinking Skills Exhibited in Portfolios

**Criteria for Ascertaining Level of Students Reflections Upon Artwork
and Critical-Thinking Skills Exhibited in Portfolios**

The reflective writing exhibited in the portfolio will be assessed using the following descriptors to classify the level of students critical-thinking skills exhibited in the portfolio.

Description of Selected Artwork

Level 5—Advanced
The student identified an example of artwork in their portfolio and thoroughly described the selected work of art using the vocabulary of the visual arts to express their observations that included each of the following: (ABCD)
- (a) The size of the artwork
- (b) The medium used
- (c) The processes or techniques used to create the artwork
- (d) The subject matter (figures, animals, objects, etc.) OR
    If there are no recognizable objects in the artwork, the student identified and described one or more of the elements of art (line, shape, form, color, value, texture, or space) exhibited in the work of art.

Level 4—Proficient
The student identified an example of their artwork and described selected work of art using the vocabulary of the visual arts to express their observations that included 3 or more of the following: (ABCD)
- (a) The size of the artwork
- (b) The medium used
- (c) The processes or techniques used to create the artwork
- (d) The subject matter (figures, animals, objects, etc.) OR
    If there are no recognizable objects in the artwork, the student identified and described one or more of the elements of art (line, shape, form, color, value, texture, or space) exhibited in the work of art.

Level 3—Basic
The student identified an example of their artwork and described selected work of art using the vocabulary of the visual arts to express their observations that included 2 or more of the following: (ABCD)
- (a) The size of the artwork
- (b) The medium used
- (c) The processes or techniques used to create the artwork
- (d) The subject matter (figures, animals, objects, etc.) OR
    If there are no recognizable objects in the artwork, the student identified and described one or more of the elements of art (line, shape, form, color, value, texture, or space) exhibited in the work of art.

Level 2—Below Basic
The student identified example of their artwork and described selected work of art using the vocabulary of the visual arts to express their observations that included one of the following: (ABCD)
      (a) The size of the artwork
      (b) The medium used
      (c) The processes or techniques used to create the artwork
      (d) The subject matter (figures, animals, objects, etc.) OR
          If there are no recognizable objects in the artwork, the student identified and described one or more of the   elements of art (line, shape, form, color, value, texture, or space) exhibited in the work of art.

Level 1—Far Below Basic
Description of selected artwork not observed in the portfolio.

Critique of Selected Artwork

Level 5—Advanced
The student identified an example of artwork in their portfolio and thoroughly described acceptable and unacceptable elements of their performance, and suggested changes for refining or reworking one of their own works of art or for creating future artwork using the vocabulary of the visual arts to express their observations and opinions that included the following:
      (a) Acceptable elements of their performance
      (b) Unacceptable elements of their performance
      (c) Suggested changes for refining or reworking one of their own works of art or for creating future artwork
      (d) One or more of the elements of art (line, shape, form, color, value, texture, or space) or the principles of design (balance, unity, contrast, emphasis, pattern, rhythm and movement) exhibited in the work of art.

Level 4—Proficient
The student identified an example of artwork in their portfolio and described acceptable and unacceptable elements of their performance, and suggested changes for refining or reworking one of their own works of art or for creating future artwork using the vocabulary of the visual arts to express their observations and opinions that included 3 of the following:
      (a) Acceptable elements of their performance
      (b) Unacceptable elements of their performance
      (c) Suggested changes for refining or reworking one of their own works of art or for creating future artwork
      (d) One or more of the elements of art (line, shape, form, color, value, texture, or space) or the principles of design (balance, unity, contrast, emphasis, pattern, rhythm and movement) exhibited in the work of art.

Level 3—Basic

The student identified an example of artwork in their portfolio and described acceptable and unacceptable elements of their performance, and suggested changes for refining or reworking one of their own works of art or for creating future artwork using the vocabulary of the visual arts to express their observations and opinions that included 2 of the following:

      (a) Acceptable elements of their performance
      (b) Unacceptable elements of their performance
      (c) Suggested changes for refining or reworking one of their own works of art or for creating future artwork
      (d) One or more of the elements of art (line, shape, form, color, value, texture, or space) or the principles of design (balance, unity, contrast, emphasis, pattern, rhythm and movement) exhibited in the work of art.

Level 2—Below Basic

The student identified an example of artwork in their portfolio and described acceptable and unacceptable elements of their performance, and suggested changes for refining or reworking one of their own works of art or for creating future artwork using the vocabulary of the visual arts to express their observations and opinions that included 1 of the following:

      (a) Acceptable elements of their performance
      (b) Unacceptable elements of their performance
      (c) Suggested changes for refining or reworking one of their own works of art or for creating future artwork
      (d) One or more of the elements of art (line, shape, form, color, value, texture, or space) or the principles of design (balance, unity, contrast, emphasis, pattern, rhythm and movement) exhibited in the work of art.

Level 1—Far Below Basic

The student did not identify an example of artwork in their portfolio or the critique of selected artwork not observed in the portfolio.

Appendix B

Criteria for Ascertaining Level of Students Reflections Upon Artwork and
Critical-Thinking Skills Exhibited in Portfolios
Coding Sheets

Criteria for Ascertaining Level of Students Reflections Upon Artwork and
Critical-Thinking Skills Exhibited in Portfolios
Coding Sheets

Description of Selected Artwork Coding Sheet

Student Work # Initials M/F School Teacher	Identified Example Of Artwork In Portfolio	A Size	B Medium	C Processes	D Subject matter or Elements	Description Level 1-5
SW 1. PB Male Thoreau Rose	Written reflection stapled to artwork	9" x 12"	Pencil	Drawing	Giraffe, Dinosaur/ Organic Shapes Colors	**Level 5 Advanced**
SW 2. GD Male Thoreau Rose	Written reflection stapled to artwork		Paper	Drawing	Contrast, colors, shapes, variety, value	**Level 4 Proficient**
SW 3. JF Female Thoreau Rose	Written reflection stapled to artwork		3HB HB Pencil Paper	Drawing Shading	Balance, shape, Value, lines, color, Random objects	**Level 4 Proficient**
SW 4. CP Female Marina Chan	Answered Questions On handout Thumbnail		Collage Paint		Vietnam War, Soldier/ Emphasis Variety	**Level 3 Basic**
SW 5. CD NA Marina Chan	Answered Questions On handout				Color Balance	**Level 2 Below Basic**
SW 6. GP Male Marina Chan	Answered Questions On handout			Shading brushstrokes	Hand holding the ball/ Shape	**Level 3 Basic**
SW 7. EY Female Marina Chan	Answered Questions On handout		Colored Pencils	Draw Shading	Flowers, skull/ Balance, Emphasis, Unity, Variety, line, Pattern, color	**Level 4 Proficient**

SW 8. AB NA Marina Chan	Answered Questions On handout		Scratch Board		Flowers Lady bugs Balance, pattern	**Level 3 Basic**
SW 9. IE Male Chavez Perez	Artist's Statement	Size of Original Fill in the blank	Oil, chalk, tempura, Glass, paper, was	Shading	Theme of unity, multiple faces, Colors, patterns, balance, contrast…	**Level 5 Advanced**
SW 10. DL Female Chavez Perez	Artist's Statement	Size of Original Fill in blank	Acrylics, glass, CD's, Unexpected materials	Adding color to the characters	3-D Puzzle faces color	**Level 5 Advanced**
SW 11. LK Female Hillcrest Parker	Artist's Statement		Dry media	Painting	Landscapes Color, shape, line	**Level 4 Proficient**
SW 12. DD Male Hillcrest Parker	Artist's Statement				Shapes, colors	**Level 2 Below Basic**
SW 13. NN NA Hillcrest Parker	Artist's Statement		Beads, sticks, leather		Sun, moon, stars Series of ladies Shape of human form	**Level 3 Basic**
SW 14. JY Female Hillcrest Parker	Sketch Design Answered Questions On handout			Crop focus	Contrast	**Level 3 Basic**
SW 15. SP Female Pioneer Wren	Answered Questions On handout			Stop Adjust	2 girls, boy & skateboard	**Level 1 Far Below Basic**

Critique of Selected Artwork Coding Sheet

Student Work # Initials M/F School Teacher	1 Acceptable Elements	2 Unacceptable Elements	3 Changes for future Artwork	4 Elements or Principles	Critique Level 1-5
SW 1. PB Male Thoreau Rose				Shapes, colors	**Level 2 Basic**
SW 2. GD Male Thoreau Rose	"I like the fact that I overlapped some of my shapes to deep the picture smooth…"			Colors, contrast, shapes, variety, value	**Level 3 Basic**
SW 3. JF Female Thoreau Rose	"What I like about my drawing is the balance of shapes."			Balance, Shapes, line	**Level 3 Basic**
SW 4. CP Female Marina Chan	Incorporate Real pictures and other medias like paint			Variety Emphasis	**Level 3 Basic**
SW 5. CD NA Marina Chan	The color is well balanced			Color Balance	**Level 3** Basic
SW 6. GP Male Marina Chan	The shading is done well I like hands		More shading on the ball	Shape Emphasis	**Level 4 Proficient**

SW 7. EY Female Marina Chan	The smooth surface of the skull works well with the busy petals…		More shading More Color	Balance, emphasis unity, variety, line, pattern	**Level 4—Proficient**
SW 8. AB NA Marina Chan	It worked because I was able to show the different patterns with the scratchboard		More detail More realism	Balance, pattern	**Level 4—Proficient**
SW 9. IE Male Chavez Perez	The unity of color is important because it helps the audience understand the emotion of the piece.			Unity, Colors, patterns, balance, contrast…	**Level 3 Basic**
SW 10. DL Female Chavez Perez	"I believe that the piece turned out great. I used different media and the French-like cultures is shadowed, w/the music & the cello & just the whole piece reminds me of the Renaissance orchestral atmosphere"	Obstacles that I found were few; through these obstacles, I found out that my strengths were to come up with many ideas in a short period, and work efficiently, at correcting mistakes.	"On the edges of the guitar w/ more brownish colors … probably will be shaded w/charcoal or brown pastels."	Colors Lines	**Level 5—Advanced**
SW 11. LK Female		I really guess that I am never satisfied with my work		Color, shape, line	**Level 3 Basic**
SW 12. DD Male				Shapes, colors	**Level 2 Below Basic**

SW 13. NN NA	The details in my work have gotten much better.		I believe that I have much room for the development of skills.	Shape	**Level 3 Basic**
SW 14. JY Female	I think my most successful pictures were the show & stop action ones. They showed movement and contrast.			Movement and contrast	**Level 3 Basic**
SW 15. SP Male		They turned out kinda blurry			**Level 2 Below Basic**

Appendix C

Criteria for Ascertaining Level of Maturation

Criteria for Ascertaining Level of Maturation
(Love, Mc Kean, & Gathercoal, 2004)

Criteria for Ascertaining Level of Maturation

Statement Regarding System Structure and Function	Positive Response	Negative Response	Maturation Level
Students have no schema that guides the organization and artifact selection. A portfolio is really just a scrapbook of assignments completed in a course or awards received along the way.	Continue to next statement		Level 1—Scrapbook Hard-copy portfolio, e-portfolio, or webfolio
Student work is guided and arranged by educator-, department-, or institution-determined curriculum requirements or standards and institution-wide "student life" contributions	Continue to next statement		Level 2—Curriculum Vitae Hard-copy portfolio, e-portfolio, or webfolio
The student can contribute to the content structure within the departmental and program curricular framework or "student life" institutional showcase of achievements. The portfolio is a working and a showcase portfolio.	Continue to next statement		Level 3—Curriculum Collaboration Webfolio
Students can redeem their work multiple times based on feedback from a variety of interested parties, educators, mentors, administrators, parent/caregiver(s), employers, and recruiters.	Continue to next statement		Level 4—Mentoring Leading to Mastery Webfolio
Work-sample assessment is linked to standards, program goals, and other descriptors like higher-order thinking taxonomies, and this data is retrieved for analysis at the individual, class, program, or institutional level.			Level 5—Authentic Evidence as the Authoritative Evidence Webfolio

Appendix D

Letter to California Art Education Association Northern Regional Chair

Barbara Hughes
XX XXXX Street
San Francisco, CA

October 25, 2007

Teresa L. Cotner, Ph.D.
Chair, California Art Education Association Northern Area
Assistant Professor, Art Education
California State University, Chico
Chico, California 95929-0820

Dear Dr. Cotner,

I am conducting a study on portfolios in visual-arts courses at the secondary level in California. I would like to contact the California Art Education Association Northern Area members and invite them to participate in my study. I am seeking your permission to contact the CAEA members by e-mail and invite the secondary visual-arts teachers to participate in the study. Interested members will be asked to indicate their interest by replying to the e-mail and providing me with their name, mailing address, and basic qualifications: (a) holding a California single-subject teaching credential in art, (b) teaching one or more visual-arts courses at the secondary level, and (c) facilitating portfolios of student work. Each visual-arts teacher that meets the basic qualifications will be invited to participate in the study and receive a cover letter that states the general aims of the study, an Informed Consent Form, and pre-addressed, stamped, return envelope. After a visual-arts teacher that agrees to participate in the study, the school principal will receive a letter of introduction that states the general aims of the study, an Informed Consent Form, and pre-addressed, stamped, return envelope. Participation in this study is voluntary.

The purpose of this project is to investigate portfolios in secondary visual-arts courses. Given my focus, I am requesting secondary visual-arts teachers' help in three ways: a) permission to observe one visual-arts class; b) permission to take copies of course materials, such as the course syllabus, and c) permission to interview the visual-arts teacher about portfolios and to record the audio portion of the conversation. The classroom observation will take place during mutually convenient class period. The interview will last no more than one hour. The gathering of information for my project during these activities offers no risks of any kind to the students. Participation in this study is completely voluntary. If the teacher should choose not to participate, information gathered will not be included in the report. Teacher may withdraw from the project at any time, should that prove necessary.

Part of my requirement toward the completion of my doctoral studies in the School of Education at the University of San Francisco includes writing about and discussing with others what I have learned about portfolios. In doing so, I will protect the identity of the teacher and that of the school by using pseudonyms rather than real names. Although I will quote directly from interviews, documents, and observations, I will be attentive to protecting confidentiality. Approval for this study has been obtained from the University of San Francisco Institutional Review Boards.

Your signature below indicates that you are aware of my research and that you will provide me with access to the e-mail address of the CAEA members from the Northern California region. Please sign this letter, make a copy for yourself, and return the original to me. Please feel free to contact me if you have any further questions about this project at (415) xxxx or e-mail me at xxxx. If you would like to see a summary of the results, you can send me a request by e-mail, and I will send you a summary once the study is completed.

Sincerely,

Barbara Hughes
Doctoral Candidate
School of Education
University of San Francisco

Consent

My signature below indicates that I acknowledge and authorize Barbara Hughes to be given access to the e-mail addresses of the CAEA members from Northern California and understand that she will invite the CAEA members from Northern California to participate in her study of portfolios in secondary visual-arts courses.

Signature:
Date:

Teresa L. Cotner, Ph.D.
Chair, California Art Education Association Northern Area
Assistant Professor, Art Education
California State University, Chico
Chico, California 95929-0820

Appendix E

Announcement to CAEA Members

Barbara Hughes
XX XXXX Street
San Francisco, CA

Dear California Art Education Association Northern California Member,

My name is Barbara Hughes and I am a member of the California Art Education Association. In addition to teaching ceramics full time, I am a doctoral candidate in the School of Education at the University of San Francisco. As part of the degree requirements, I am doing a study on portfolios in visual-arts courses at the secondary level in California. I am asking for your participation in my study because of your valuable experience as an art educator. If you agree to be in this study, your insight and involvement will make a contribution to the research aimed at exploring a full range of portfolios in secondary visual-arts courses.

The purpose of this project is to explore portfolios in secondary visual-arts courses. Given my focus, I am requesting your help in four ways: (a) permission to observe one of your visual-arts classes; (b) permission to take copies of course materials, such as the course syllabus, handouts, rubrics, (c) permission to interview you about your views on portfolios, and (d) parental permission to photograph selected samples of student work in the portfolio. The classroom observation will take place during mutually convenient class period. The interview will last no more than one hour. The gathering of information for my project during these activities offers no risks of any kind to your art students. Participation in this study is completely voluntary.

If you are interested in participating, please take a moment to reply to this brief survey and return it to me by e-mail. It should take less than 10 minutes to complete. Your responses will be kept confidential. If you do not respond to this survey or return the op-out message, you will be contacted again with this request in the next 2 weeks.

If you have any questions or comments about participation in this study, I would appreciate it if you would please first share your concerns with me. If for some reason you do not wish to do this, please contact the IRBPHS at the University of San Francisco, which is concerned with protection of volunteers in research projects by calling (415) 422-6091 and leaving a voicemail message, by e-mailing IRBPHS@usfca.edu, or by writing to the IRBPHS, Department of Counseling Psychology, School of Education, University of San Francisco, 2130 Fulton Street, San Francisco, CA 94117-1080.

Thank you for your interest in and contribution to my research on approaches to portfolios in secondary visual-arts courses. Please feel free to contact me if you have any further questions about this project at (415) xxx-xxxx or e-mail me at xxxx. If you would like to see a summary of the results, you can send me a request by e-mail, and I will send you a summary once the study is completed.

Sincerely,

Barbara Hughes
Doctoral Candidate
School of Education
University of San Francisco

Survey Questionnaire

1. Do you have a valid California single-subject art-teaching credential?

2. Do you teach one or more visual-arts courses in grades 9-12?

3. Do you implement portfolios in one or more of your courses?

4. Would you be willing to discuss your views on portfolios?

5. Would you be willing to have one of your visual-arts classes observed?

First Name:

Last Name:

E-mail:

School Name:

School Address:

City:

ZIP:

School Phone:

Thank you for taking your time to complete this questionnaire. Once I receive your completed questionnaire and review the results, you may or may not be contacted to volunteer for an individual interview session.

___Opt-out message: I do not wish to participate. Please remove my name from your list

Appendix F

Participant Informed Consent Letter

Barbara Hughes
XX XXXX Street
San Francisco, CA

January 29, 2007

Dear xxxx,

This letter confirms that you have been provided with a brief description of my study investigating portfolios in visual-arts courses at the secondary level. Your signature on the enclosed Informed Consent Form indicates that you acknowledge and authorize the research that is to be conducted with the permission of the principal on school grounds.

Your insight and involvement will make a definite contribution to my research aimed at exploring a full range of portfolios in secondary visual-arts courses. I will make every effort to ensure that my data collection causes minimal distraction to your art students' regular class activities. Your participation is entirely voluntary and results will be kept confidential and anonymous. Please sign the enclosed form and return it to me in the pre-addressed, stamped, envelope.

Sincerely,

Barbara Hughes
Doctoral Candidate
School of Education
University of San Francisco

Appendix G

Participant Informed Consent Form

Student Portfolios in California Secondary Visual-Arts Courses:
A Qualitative Study of Teachers' Implementation

Purpose and Background

Barbara Hughes, a doctoral student in the School of Education at the University of San Francisco is doing a study on portfolios in secondary visual-arts courses. She is also a high school ceramics teacher in the San Francisco Bay Area.

You are being asked to participate in this research study because of your experience as a visual-arts teacher at the secondary level and your implementation of portfolios with your students. The gathering of information for this project during these activities offers no risks of any kind to your students. Your participation in this study is completely voluntary.

Procedures

If I agree to be in this study, the following will happen:

1. I give permission for Barbara Hughes to observe one of my visual-arts classes during mutually convenient class period.

2. I agree to meet with Barbara Hughes during mutually convenient time and to share my views about portfolios in secondary visual-arts courses. I give my permission to record the audio portion the interview.

3. I will provide Barbara Hughes with copies of pertinent course materials, such as the course syllabus and portfolio project information that she may keep. The materials from each school site will be compared to identify similarities and differences in visual-arts courses and portfolios at the secondary level.

4. I will give each student selected a Parental Consent For Research Participation Form that must be signed by the parent or guardian by the visitation date or indicates the student is 18 years of age or older and has granted permission for Barbara Hughes to view the portfolio of student work. I will select portfolios that have signed Parental Consent For Research Participation Forms for Barbara to view. I understand that Barbara may photograph or copy samples of student work exhibited in the portfolio.

Risks and/or Discomforts

The possible risks for this study are minimal. The student, teacher, and school name will not be used when reporting the data. Study records will be kept as confidential as possible. Only the researcher will have access to the data. Data will be coded and kept in a locked file at all times. Only this investigator will have access to the files.

Potential Benefits to Subjects

There will be no direct benefits by participating in this study. The visual-arts teachers that participate in this project will have an opportunity to express their views about portfolios in secondary visual-arts courses and may have a better understanding of their perceptions of portfolios after participating in the study. The teacher may also appreciate having the opportunity to provide information and to express opinions of both the positive and challenging aspects of portfolios in the visual-arts courses at the secondary level.

Costs to Subjects

There is no cost for participating in this study.

Reimbursements/Compensation to Subjects

There will be no payment or reimbursement to teacher or school for study participation.

Confidentiality of Records

Data will be anonymous and no individual participant identities will be used in any reports or publications resulting from the study. Teachers and schools participating in this study will be protected by pseudonyms. All records and data used in this study will be kept confidential and in a secure location. No one at the school will have access to it.

Questions
I have talked to Barbara Hughes about this study and have had my questions answered. If have further questions about the study or for some reason or I do not wish to do this, I may contact her at (415) xxx-xxxx or e-mail me at xxxxx. I understand approval for this study has been obtained from the University of San Francisco Institutional Review Boards. I may contact the IRBPHS at the University of San Francisco, which is concerned with protection of volunteers in research projects by calling (415) 422-6091 and leaving a voicemail message, by e-mailing IRBPHS@usfca.edu, or by writing to the IRBPHS, Department of Counseling Psychology, School of Education, University of San Francisco, 2130 Fulton Street, San Francisco, CA 94117-1080.

A Research Subject's Bill of Rights is attached to the consent form.

Consent

I understand that PARTICIPATION IN RESEARCH IS VOLUNTARY. I am free to decline to be in this study, or to withdraw from it at any point. My signature below indicates that I agree to participate in this study. Please return this form to Barbara Hughes.

_____   _____

Signature of Subject's (Teacher)   Date of Signature

_____   _____

Signature of Person (Researcher)   Date of Signature

Appendix H

PARENTAL CONSENT FOR RESEARCH PARTICIPATION

PARENTAL CONSENT FOR RESEARCH PARTICIPATION

(To be completed by the parents/legal guardians of minor students involved in this project, or by students who are 18 years of age or older who are involved in this project.)

Purpose and Background

Barbara Hughes, a full time visual-arts teacher and graduate student of the School of Education at the University of San Francisco is doing a study on portfolios of student artwork at the secondary level. Your child's art teacher and school principal have given their written permission for this project that requires the observation of one class period in your child's art class. The primary focus is on the portfolios of student artwork, not on the students in the class. The classroom observation offers no risks of any kind to the art students. Your child was selected by his/her art teacher to participate in this study because he/she has developed a portfolio of artwork. Participation in this study is completely voluntary. The form below will be used to document your permission for these activities. Your responses will be kept confidential.

Procedures

If I agree to allow my child to be in this study, the following will happen:
1. Miss Hughes will observe my child's art class for one class period.
2. Miss Hughes will review my child's portfolio of artwork and may select one or more items to copy or photograph as samples of visual-arts student work at the secondary level. No student's name will appear on any materials.

Risks and/or Discomforts

Participation in research may mean a loss of confidentiality. Study records will be kept as confidential as is possible. No individual identities will be used in any reports or publications resulting from the study. Study information will be coded and kept in locked files at all times. Only study personnel will have access to the files.

Benefits

There will be no direct benefit to me or to my child from participating in this study. The anticipated benefit of this study is a better understanding of the student visual-arts portfolios at the secondary level in California.

Costs/Financial Considerations

There will be no costs to me or to my child as a result of taking part in this study.

Payment/Reimbursement

Neither my child nor I will be reimbursed for participation in this study.

Questions

I have talked my child's teacher about this study and have had my questions answered. If I have further questions about the study, I may call Barbara Hughes at 415 568 –7351.

If for some reason I do not wish to do this, I may contact the IRBPHS, which is

concerned with protection of volunteers in research projects. I may reach the IRBPHS office by calling (415) 422-6091 and leaving a voicemail message, FAX at (415) 422-5528, by e-mailing IRBPHS@usfca.edu, or by writing to the:
IRBPHS, Department of Counseling Psychology Education Building
University of San Francisco
2130 Fulton
Street, San Francisco, CA 94117-1080.

Consent
I have been given a copy of the "Research Subject's Bill of Rights," and I have been given a copy of this consent form to keep. PARTICIPATION IN RESEARCH IS VOLUNTARY. I am free to decline to have my child be in this study, or to withdraw my child from it at any point. My decision as to whether or not to have my child participate in this study will have no influence on my child's present or future status as a student in the art class.

My signature below indicates that I agree to allow my child to participate in this study. Please return the consent form to your child's art teacher.

_____   _____
Signature of Subject's Parent/Guardian   Date of Signature

_____   _____
Signature of Person Obtaining Consent   Date of Signature

I am the student named above and certify that I am 18 years of age or older. I have read and understand the project description given above. I understand that my name will <u>not</u> appear on any materials.

_____   _____
Signature of Student 18 years of age or older   Date of Signature

_____I DO grant permission for the teacher to share my portfolio with Miss Hughes as part of classroom activities. I understand that the work in the portfolio may be copied or photographed and that no names will appear on any materials.

_____I DO NOT grant permission for the teacher to share my portfolio with Miss Hughes. The work in the portfolio may not be photographed and/or copied as part of classroom activities.

Appendix I

Research Subjects Bill of Rights

Research Subjects Bill of Rights

The rights below are the rights of every person who is asked to be in a research study. As a research subject, I have the following rights:

(1) To be told what the study is trying to find out;

(2) To be told what will happen to me and whether any of the procedures, drugs, or devices are different from what would be used in standard practice;

(3) To be told about the frequent and/or important risks, side effects, or discomforts of the things that will happen to me for research purposes;

(4) To be told if I can expect any benefit from participating, and, if so, what the benefit might be;

(5) To be told of the other choices I have and how they may be better or worse than being in the study;

(6) To be allowed to ask any questions concerning the study both before agreeing to be involved and during the course of the study;

(7) To be told what sort of medical or psychological treatment is available if any complications arise;

(8) To refuse to participate at all or to change my mind about participation after the study is started; if I were to make such a decision, it will not affect my right to receive the care or privileges I would receive if I were not in the study;

(9) To receive a copy of the signed and dated consent form; and

(10) To be free of pressure when considering whether I wish to agree to be in the study. If I have other questions, I should ask the researcher or the research assistant. In addition, I may contact the Institutional Review Board for the Protection of Human Subjects (IRBPHS), which is concerned with protection of volunteers in research projects. I may reach the IRBPHS by calling (415) 422-6091, by electronic mail at IRBPHS@usfca.edu, or by writing to USF IRBPHS, Department of Counseling Psychology, Education Building, 2130 Fulton Street, San Francisco, CA 94117-1080.

Appendix J

High-School Principal Cover Letter

Barbara Hughes
XX XXXX Street
San Francisco, CA

Mr. XXX, Principal
XXX High School
410 South 4th Street
XXX, CA XXX

RE: Portfolios in Visual-Arts Courses

Dear Mr. XXX,

My name is Barbara Hughes and I am a member of the California Art Education
Association. In addition to teaching ceramics full time, I am a doctoral candidate in the
School of Education at the University of San Francisco. As part of the degree
requirements, I am doing a study on portfolios in visual-arts courses at the secondary
level in California. Mr. xxxxx, visual-arts teacher at your school, has expressed an
interest in participating in my study.

The xxxx High School visual-arts department involvement in this project will make a
definite contribution to my research aimed at exploring a full range of portfolios in
secondary visual-arts courses in California. I will make every effort to ensure that my
data collection causes minimal distraction to your art students' regular class activities.
The visual-arts teacher has given consent in four ways: (a) permission to observe one of
the visual-arts classes; (b) permission to take copies of course materials, such as
handouts; (c) permission to record the interview about portfolios; and (d) to distribute
Parental Consent For Research Participation Forms to students that must be signed by the
parent or guardian by the visitation date (or indicates the student is 18 years of age or
older and has granted permission) for Barbara Hughes to view the portfolio of student
work and photograph or copy samples of student work exhibited in the portfolio.

Your school and art teacher participation is entirely voluntary and results will be kept
confidential and anonymous. Your signature on the enclosed letter indicates that you
acknowledge and authorize the research that is to be conducted with the permission of the
visual-arts teacher on school grounds. Please sign this letter and return it in the pre-
addressed, stamped, envelope.

Sincerely,

Barbara Hughes
Doctoral Candidate
School of Education
University of San Francisco

Consent

My signature below indicates that I acknowledge and authorize Barbara Hughes (a) to observe one of the visual-arts classes; (b) permission to take copies of course materials, such as handouts; (c) permission to interview the visual-art teacher about portfolios; and (d) to review student portfolios with written parental permission slips (or indicate the student is 18 years of age or older and has granted permission) that indicate that work in the portfolio may be copied or photographed as part of classroom activities. Please sign this letter and return it in the pre-addressed, stamped, envelope.

Signature:
Date:

Appendix K

Follow-Up Invitation to Participate in Study

Barbara Hughes
XX XXXX Street
San Francisco, CA

Dear California Art Education Association Northern California Member,

I am sending this email in the hopes that you will participate in a study on portfolios in visual-arts courses at the secondary level in California or that you can assist me in contacting secondary visual-arts teachers. I am seeking only to include the valuable opinions of secondary visual-arts teachers in regard to portfolios of student artwork. My hope is that you will respond to the message and participate in the project or you will forward this message and encourage other secondary visual-arts instructors to participate in the project. If you have any questions about this message, please feel free to contact me.

My name is Barbara Hughes and I am a member of the California Art Education Association. In addition to teaching ceramics full time, I am a doctoral candidate in the School of Education at the University of San Francisco. As part of the degree requirements, I am doing a study on portfolios in visual-arts courses at the secondary level in California. I am asking for your participation in my study because of your valuable experience as an art educator. If you agree to be in this study, your insight and involvement will make a contribution to the research aimed at exploring a full range of portfolios in secondary visual-arts courses.

The purpose of this project is to explore portfolios in secondary visual-arts courses. Given my focus, I am requesting your help in three ways: (a) permission to observe one of your visual-arts classes; (b) permission to take copies of course materials, such as the course syllabus, handouts, rubrics, and (c) permission to interview you about your views on portfolios. The classroom observation will take place during mutually convenient class period. The interview will last no more than one hour. The gathering of information for my project during these activities offers no risks of any kind to your art students. Participation in this study is completely voluntary.

If you are interested in participating, please take a moment to reply to this brief survey and return it to me by e-mail. It should take less than 10 minutes to complete. Your responses will be kept confidential.

If you have any questions or comments about participation in this study, I would appreciate it if you would please share your concerns with me. If for some reason you do not wish to do this, please contact the IRBPHS at the University of San Francisco, which is concerned with protection of volunteers in research projects by calling (415) 422-6091 and leaving a voicemail message, by e-mailing IRBPHS@usfca.edu, or by writing to the IRBPHS, Department of Counseling Psychology, School of Education, University of San Francisco, 2130 Fulton Street, San Francisco, CA 94117-1080.

Thank you for your interest in and contribution to my research on approaches to portfolios in secondary visual-arts courses. Please feel free to contact me if you have any further questions about this project at (415) xxx xxx or e-mail me at xxxxx. If you would like to see a summary of the results, you can send me a request by e-mail, and I will send you a summary once the study is completed.

Sincerely,

Barbara Hughes
Doctoral Candidate
School of Education
University of San Francisco

<div align="center">Survey Questionnaire</div>

1. Do you have a valid California single-subject art-teaching credential?

2. Do you teach one or more visual-arts courses in grades 9-12?

3. Do you implement portfolios in one or more of your courses?

4. Would you be willing to discuss your views on portfolios?

5. Would you be willing to have one of your visual-arts classes observed?

First Name:

Last Name:

E-mail:

School Name:

School Address:

City:

ZIP:

School Phone:

Thank you for taking your time to complete this questionnaire. Once I receive your completed questionnaire and review the results, you may or may not be contacted to volunteer for an individual interview session.

Appendix L

Document Inventory Guide

Document Inventory Guide

Teacher: School:	RP HHS	CS THS	KP PVHS	SC CHS	KT PHS	JW PHS	LC MHS	GG CCH	KR THS
Consent Letter Mailed	2/1	2/1	2/4	2/6	2/15	2/15	2/15	3/13	2/26
Purpose Statement	2/1	2/1	2/4	2/6	2/15	2/15	2/15	3/13	2/26
Bill of Rights	2/1	2/1	2/4	2/6	2/15	2/15	2/15	3/13	2/26
Principal Consent Letter Signed	2/1 x	2/1 x	2/4 x	2/6 x	2/15 x	2/15 x	2/15 x	3/13 x	2/26 x
Permission Slips Signed	2/1 x	2/1 x	2/4 x	2/6 x	2/15 x	2/15 x	2/15 x	3/13 x	2/26 x
Date Set: Time:	2/21 8:30	3/13 10:00	2/26 8:30	3/6 9:30	3/19 1:00	3/11 8:00	3/19 8:00	3/13 11:00	4/3 9:16
Sub Request:	x	x	x	x	x	x	x	x	x
Google School Map	x	x		x				x	
Google SARC	x	x	x	x	x	x	x	x	x
Teacher/ School Profile	x	x	x	x	x	x	x	x	x
Field Notes	x	x	x	x	x	x	x	x	x
Audio to Word	x	x	x	x	x	x	x	x	x
Thank you Note	x	x	x	x	x	x	x	x	x
Transcript OK with Participant	x	x	x	x	x	x	x	x	x

Source of Data: I: Interview D: Documents P: Portfolio O: Observation	RP HHS	CS THS	KT PHS	JW PHS	LC MHS	GG CCH	KR THS
Gender: M: Male F: Female	M	M	M	F	F	F	F
Ethnicity: EA: European American AA: Asian American	EA	EA	AA	EA	EA	EA	EA
Location: O	Rural	Urb	Ru	Ru	Sub	Sub	Urban
Years teaching: I	10	3	35	13	14	25	25
Years implementing portfolios: I	10	3	35	11	12	4	25
Portfolio: O Tra Dig Web AP IB	Tra AP	Tra	Tra AP	Tra	Tra AP	Tra IB	Tra
Reflection Encouraged: I	I	I	I	I	I	I	I
Course Documents: D P	D P		D	D P	D P	D P	D P
VA Content Standards Posted: O							
ESLR's Posted: O Critical Thinking: O		O O	O O	O O	O O	O O	O O
Art Class Observed: O	Art Cerm	Art	Cer Art	Phot	Crafts	Art	Art
2-D or 3-D: O	2-D 3-D	2D	2D 3D	2-D	 3-D	2-D	2-D
Portfolios Examined: 44 PO with student Writing: 15	11 3	12 0	6 0	2 2	5 5	2 2	5 3
Description: P Level 1 Far Below Basic Level 2 Below Basic Level 3 Basic Level 4 Proficient Level 5 Adv	L1 L2 1 L3 1 L4 1 L5			L1 1 L2 L3 1 L4 L5	L1 L2 1 L3 4 L4 L5	L1 L2 L3 L4 L5 2	L1 L2 L3 1 L4 1 L5 1

Critique: P Level 1 Far Below Basic Level 2 Below Basic Level 3 Basic Level 4 Proficient Level 5 Adv	L1 L2 3 L3 L4 L5			L1 1 L2 L3 1 L4 L5	L1 L2 3 L3 L4 1 L5	L1 L2 1 L3 L4 1 L5	L1 L2 1 L3 2 L4 L5
Criteria for Ascertaining Level of Maturation: P Level 1 Scrapbook Level 2 Curriculum Vitae Level 3 Collaboration Level 4 Mentoring /Webfolio Level 5 Authentic Evidence	L2 AP	L1	L2 AP	L1	L2	L2 IB	L2

Appendix M

Carl Snyder (T1)

Appendix M

Visual-Arts Teacher 1 Description

Carl Snyder is in his third year of teaching visual arts and implementing portfolios at Henry Thoreau High School. As I observed the classroom, Mr. Snyder circulated about the classroom, observing his students, and complementing his or her artwork. The visual-arts classrooms at Thoreau High School recently were moved into temporary classrooms. The ongoing construction project on campus includes the addition of several new visual-arts classrooms. The temporary visual-arts classroom I observed had once been a typing room. The south wall was filled with old wooden cabinets, shelves, and one very small white porcelain sink. The original clock was an hour slow. A bulletin board displayed 35 pencil self-portraits created by the students. I asked the teacher if the students worked from a photograph or a mirror. Mr. Snyder told me that they used mirrors on stands and that the self-portrait project took three weeks to complete. The pencil drawings were developed fully, with attention to composition, background, and exhibited a range of values. The north wall had a heater, one color-wheel poster, one balance poster, a counter filled with plants, and a wall of windows without shades facing the street. The west wall of the classroom had two tall metal storage cabinets, one set of large flat storage drawers, one drying rack, and many drawing boards stacked on the floor. The back of the class was filled with stacks of moving boxes that blocked access to a door in the back of the classroom.

The front of the classroom, the east wall, had a white board with the daily assignment directions printed, a diagram of the project specifications (measurements). Beside the teacher's desk in the front of the room, there were supplies for the students to

use (rulers, pencils, erasers, paper, handouts, tape, and staplers). An overhead projector

peaked out from under a sheet. In the front of the room, Henry Thoreau High School

Expected School Wide Learning Results (ESLRs) were posted and clearly indicated:

> ESLR 5. Critical and creative thinkers who:
> Employ higher level thinking skills such as analysis, synthesis,
> application, and evaluation in effective problem solving.
> Use imaginative ideas to create products or performances through the use
> of speaking, reading, writing, listening, and teaching.

Visual-Arts Classroom Activities Teacher 1

When I entered the classroom, the 55-minute class period had just begun. The

drawing students in the two-dimensional art room were seated and busy working on his

or her assignment, complementary color mixing. The 31 students (19 boys and 13 girls)

were seated in four table groups. The majority of the students had backpacks on the back

of his or her chairs, the floor, or a vacant seat near them. There were a few musical

instrument cases on the floor. Each student had an 8 1/2in. X 11in. sheet of white paper, a

ruler, a pencil, an eraser, a small paint tray, paint brush, and old yogurt container filled

with water. Each of the four table groups had an assortment of tempera paint. Each

student selected the tempera paint for the assignment. Most of the students selected

primary colors. Each student had a manila folder (about 12in. X 18in.) at his or her desk

with his or her name, class period, and table number on his or her folder. Some of the

students had decorated the folders with doodles.

Near the end of the period, a male student reminded the teacher that there were 10

minutes left in the period. Many of the students lined up single file against the wooden

cabinets waiting to use the sink. The teacher stood by the sink and gave out gray wet

washrags to the students to clean his or her areas. While waiting in line for the sink, the

students held the water container with one hand and began swirling their paintbrushes with the other hand. A few students volunteered to take several wet projects from their table to the drying rack in the back of the classroom. A few students gathered the portfolios for their table group and placed the portfolios in the cabinet. The students seemed very calm during the clean-up process while waiting their turn to use the sink. The teacher did not have to remind students to clean up. A few students worked until the last minute on their projects.

Mr. Snyder asked, "Carol, is your area pristine?" The student responded, "Yes, it is very clean." Mr. Snyder announced, "If your area is clean and all put away, you guys may go." The students left the room quietly. One student said, "Bye Carol!" The other student responded, "Bye Katie!" Mr. Snyder told the boy with a basketball in the classroom, "Rick, loose the ball tomorrow or dump it in your locker. Too much of a temptation." Rick responded, "Bye Mr. S." I realized that there were no bells ringing at the end of the class period. Overall the classroom routine was very organized and purposeful.

Document Examination Visual-Arts Teacher 1

Mr. Snyder did not provide me with copies of course documents.

Portfolio Examination Visual-Arts Teacher 1

The primary purpose of the portfolio examination was to explore students' written reflections upon the artwork exhibited in his or her portfolios. Mr. Snyder selected twelve portfolios for me to examine in the school library. Each portfolio folder was constructed from a cream colored Manila paper folded in half. On the cover, each student wrote his or her name, class period, and table number. The portfolios contained from 19 to 27 pieces

of artwork. The majority of the portfolio assignments were created in pencil in the Fall

semester. Most of the students wrote his or her name in the lower right hand corner. In

the lower right hand corner of each paper, the teacher wrote in pencil the percentage

grade and a letter grade, such as 75/100 = C. The Light and Shadow handout in the

portfolio provided students with a list of definitions (Highlight, Crest or Core Shadow,

Reflected Light, Cast Shadow) and a quarter of a page space for the students to create a

pencil sketch with a range of values and a light source. The students labeled the different

parts of his or her sketch (Highlight, Crest or Core Shadow, Reflected Light, Cast

Shadow). The box above and below the horizon line exercise in pencil on newsprint also

exhibited student labeling where the horizon-line and vanishing point appeared in his or

her work. Of the twelve portfolios examined, there was no evidence to support the

student's reflection upon the artwork, neither describing his or her artwork nor the

students critiquing the artwork exhibited in the portfolios.

Interview with Visual-Arts Teacher 1

　　　　The primary aim of the interview was to obtain an understanding of Mr. Snyder's

instructional strategies that encourage students' to reflect upon his or her artwork

exhibited in his or her portfolios. Mr. Snyder suggested that we go to the school library to

conduct the interview and to look at the portfolios of student artwork that he had

gathered. Due to the time limitations of the schedule, I suggested that we first conduct the

interview and then examine the portfolios. The interview lasted the entire preparation

period. During the interview, Mr. Snyder discussed one of his instructional strategies to

encourage students to reflect upon his or her work, he stated, " Generally at the end of the

semester I have them write – I give them a series of questions and have them choose two

works, usually from the beginning, one from the end, and talk about the differences…

have them kind of analyze the work from a set of criteria." Mr. Snyder described an

assignment and added, " it's good then to reinforce it afterwards with some writing. And

I don't do it with every… I should do it more. …But I think once in a while, it's really

important to reinforce it through writing and reflection."

Interview with Visual-Arts Teacher 1

Purpose of the Interview: Exploration of teacher's perspective of student portfolios
Time: 8:30-11:00 AM
Date: February 26, 2008
Place: Henry Thoreau High School Library, San Francisco, CA
Teacher: Carl Snyder (T1)
Number of years teaching visual arts: 2
Number of years implementing portfolios: 2
Type of portfolio: Traditional

Barbara (B): Ok. So it eventually will… Ok. Again, I want to thank you for meeting with me today. I can give you this, if you're the type that wants to read it.

CS: Yeah, I'd love having it with me.

CS: I'm going to ask some questions about portfolios in your visual art class, and I want you to feel comfortable answering if it's positive or negative.

CS: Absolutely.

B: And if you feel uncomfortable answering, that's fine too.

CS: Ok. I'm all about… I'm an open book.

B: Ok. Do I have your permission to record this interview?

CS: Yes, you do.

B: Ok. One of the questions I forgot to write in my little thing is how many years have you been teaching art?

CS: This is my third year, officially. Actually, in the high school. The first year was my student teaching, and then I've been here two years now. So two official years, one student teaching, sorry.

B: When did you start using portfolios?

CS: Well, that's kind of the way when I was student teaching… And I remember, when I was in high school, too, I remember that it was, we always had a portfolio, so it was always our way of keeping track of our work. I really don't know a different way of doing it, to be honest with you. It's also nice for the students to kind of review, or have a place where they can kind of see all… It's amazing how they don't look at their work, and so I sometimes have them sort of review, force them by writing assignments to review what they've done, to look at their work, but they're remarkable by how they just kind of shove their work in there without looking at it, at the body of their work. Does that make sense?

B: Yeah. I was wondering, you said that you have them review through writing assignments…

CS: Yeah, so I started using – again, it's mostly practical in the sense of why a portfolios, just, they need a place to be able to every day come, grab what they're working on, and put it back and then file it, basically it's almost like a filing system for us in the classroom. With 156 students you have to have some way of keeping track of all of that work. That's why they get a little outraged when their name isn't on it, because literally it's really hard to find the folder of that. Back to the writing assignment, generally at the end of the semester I have them write – I give them a series of questions and have them choose two works, usually from the beginning, one from the end, and talk about the differences… have them kind of analyze the work from a set of criteria, generally I hopefully talked about line, balance, all of those things, color, harmony, all those things, and give them sort of definitions of it and then have them talk about both pieces, and then maybe ideally at the end have them talk a little bit about sort of the progress that they've made through the class. And in the middle of the year I have them fill out a questionnaire about what they've done and where they want to go, and hopefully they can kind of tell me a little bit about, you know, give me some feedback about their strengths, about the good things and the bad things that have happened the whole semester.

B: In their individual work, or in the class?

CS: Kind of both, you know? But mostly about their individual… that's where I usually here, "I didn't try as hard," you know, "I should have been here more," if they're struggling. And so hopefully it'll get them to realize that the next semester can be different, although as you noticed with that one student today who showed up really late and I talked to in the hall, she's one of those students that just comes in every once in a while, and when you come in so infrequently you have no investment in the class, because you know you're going to fail, and you don't' have any continuity, and so I had that kind of heart to heart with her today, just saying, "listen, what do you want? Obviously you don't want a grade, because you're going to fail. So what do you want from me?" I'm sorry, I'm just talking stream of consciousness, I probably should be more…

B: No, no, no, no, no. This is helpful. I just assumed that you were having… because the girl came in late, that you were having some little counseling session with her.

CS: Because three weeks ago, I had this real, "ok, you failed the first semester. Don't fail the whole year. We can do this. You're talented, you're smart…" And she's more mature, so I can have these really frank conversations with her. And I've called the house numerous times, and so after this talk with her, I haven't seen her for the last three weeks, so now it's like, "listen, what do you want? When you come to this class, what do you want from me?" I've had students – I told her this – I've had students that just come once in a while, I give them a little something to do, and they're ok with that. They know they're not going to pass the class, they know they're not really learning skills, so let's be on the same page. Let's deal with the reality at hand. Are you going to come and be a part of the class, or are you just going to come once in a while and I give you a little something to do and we go along our merry way? Because some people just can't get it together. And school is just not where they're at right now. So it's a frustrating thing. But I'd rather deal with the reality than pretend that she's going to come every day, you know? So I don't know, does that sound harsh?

B: No, it's not harsh at all. I think you're being very honest with her.

CS: Yeah, I guess. Yeah, just, I hate this idea that people want to pretend like it's always going to get better. There comes a time where you just sort of have to deal with reality, deal with the fact that she's not coming, she's probably not going to come, and how do we make it work for both of us?

B: No simple answers on that one.

CS: Yeah… Thank you for letting me run with that.

B: How would you describe the portfolios in your class? I can see it's pretty much the traditional…

CS: Traditional, yeah. You know, I would like it to be a little bit more cutting edge… I'm still developing all of that stuff, and I look forward to… I told the administration that I'm hoping that this is going to… I plan on making this… This is probably the worst teaching that I'm ever going to do. In other words, hopefully every year you're getting better. So hopefully… it's really bad, and hopefully it gets better. Because I would like to open it up to the lab and have more multimedia. That would be wonderful. And to see how art can function differently.

B: This is kind of beside the point, but when I was in your class I didn't see a computer, did you have one uncovered?

CS: Yeah, underneath that TV, there is a computer there. And that again I'm hoping to have replaced. I'd like to be a little more technologically friendly. I think that's the thing that Thoreau in particular is just a little bit behind in its technology. There's other schools

that are much more cutting edge. Like Mission, actually. But I do think that the traditional is really important. Just that last little thing I want to add. I think you have to have…

B: Actual pieces of student work.

CS: Yeah. I like the hands-on craftsmanship, and I think it's really I important that they have to learn that. Everything is so virtual now in other aspects of our life, just the idea of creating something that you can touch, that you can feel, I think is really important. I mean touch, that you can look at, that you can hold, that you have to craft, is really important. It's essential, I think, to our humanity.

B: I'm right with you there. How do the students select the work in their portfolios? We kind of talked about that before, it looks like it's everything they've done, but they're taking some home.

CS: Yeah. It's really rewarding to see the stuff that they put time into. When they put time into and it's working for them, that's the stuff that they really love. And also has to appeal to some type of interest of theirs, oftentimes. And that's the thing. I try to make my assignments as diverse as possible, in order to kind of… Because one project, no matter how skilled the person is, some projects don't work for them. And no matter how terrible you are, one project will work for you. And that's what's exciting. Like I had this one student: he was no great drawer, but he loved skulls, so I kind of had thought of him when we did the skull project. He really got into that. And then that was segued into his self-portrait, and he wasn't quite successful, so I helped him kind of draw a little bit, and it gelled it for him and started really looking like him, and he became so so excited. And he's actually in that secondary class, he had to transfer out, but he was so unhappy about having to transfer out. But he took his self-portrait, and he would take it from class to class and work on it, and I said, "You shouldn't really do it…" But I was really happy for him too, and he said that people were trying to take it from him, and he was like, "don't ruin it," and I said, "if you want, you can even bring it back in, and I'll help you work on it," and stuff like that, and he was just… He wanted it, he needed it, you know? So there are those assignments. But again, I'm always amazed at how long people will work on something, and then not care about it. Like at the end of the year I give them the option of taking their portfolio or leaving it behind, and I would say 85-90% of the students leave it behind. All that time. So I sort through it, look through it, I pick out the good ones for next year to give examples, and then throw it out. They have such a short-term memory. Total short-term memory. That's what's been amazing to me. But they will literally… That's why the name thing… I will show them something that they've done: "I think this is yours. I've got everybody else's but yours." And they will not recognize their work. Even though they worked on it for a week and a half. It is always amazing to me. They have too much going on with their lives. The last thing they can remember is an artwork that they spent two weeks on.

B: Wow. I just find why can't high school students put their name on their work?

CS: Yeah, no, it's ridiculous.

B: I never thought about that bonding with it, but I do notice that there's a lot of kids, especially with the paper stuff, because I'm more of a three d craft teacher, but when we have paperwork or preliminary drawings, I'm surprised how many kids don't put their names. So the graded, and then the ungraded, and you got a zero on edline because the computer said, well look in this box!

CS: It's amazing to me. And sometimes they're even lazy about that. To even sort through. So yeah, they have a hard time recognizing their own work from the past, so it's weird.

B: You're not alone. I thought I was alone. So you mentioned briefly about how the students reflected on their work, you have some guided questions?

CS: Yes, guided questions, absolutely. Otherwise at this stage they're really not… they have trouble even with that. It has to be very, very specific. Like the idea of critique is not in their vocabulary at this point, so you have to teach them that. You have to really teach them how to critique their work, which is something that I kind of save for more advanced classes. Actually, I should start doing that with my second period class, because they're kind of ready for that, probably. They don't like to talk about other people's work, because of hurting people's feelings, you know. Although I do try to foster a spirit of brutal honesty in my class. I've told them that, and I've given them the option to opt out of that, but at the same time no one really does, so I hold it up: "Is this working? Is it not?" Because they sometimes don't want to hear it from me, but if the people around them are just, "no, it's not working." And it's just that much, it's not working, you know? It's kind of intuitive. For the first week they will tell you whether a piece is working or not, just by looking at it. "Is it done?" I'll ask them. "Is it done?" No, it's not. "Ok, fix it." Kind of a nice democratic way of looking at it. So yeah, but on that note, they do need to learn how to talk about artwork in general. Because unfortunately they're so funny, I think they move from class to class doing what's required of them. "Write an essay. Do these math problems. Do this color assignment." And they get into this production mode. They're very into the production mode, but they don't really stop and say, "Why am I doing this?" so I do try to encourage that, just by telling them the point of this, this is the big idea. I told them that yesterday. "This is what I'm trying to get you to think about when you're doing this assignment." But it's good then to reinforce it afterwards with some writing. And I don't do it with every… I should do it more. I had a master teacher who did it with every single assignment. Big projects. I feel like that was beaten to death, I felt like after a while the kids were just kind of doing the same thing over and over… there wasn't a lot of thought, really they were just kind of going through the motions. "I think this time it was good because blah blah blah blah blah…" But I think once in a while, it's really important to reinforce it through writing and reflection, and there's no big mystery there. We're not saying anything that's revolutionary. I think that's the answer to the question, kind of?

B: Yes, you did. So we've talked about how the students reflect upon their work and how you encourage that by your guided questions and giving them the larger picture. We've also touched on what are some of the benefits provided by the portfolio, the actual pieces of student work.

CS: Yeah, right, exactly. Ideally where these come from and where they're going with their work, and that's what's really nice about having it all assembled. And they can see where they've struggled and where they've really excelled. That's what's nice about having it all in the portfolio.

B: Who sees the portfolio?

CS: You know, that's funny, I was just reading that, and that's a very…

B: Well, you do, they do.

CS: Yeah, exactly. And I do go through their portfolios and kind of, especially when I'm annoyed with them… I probably do it more as a punishment than as a… Sometimes I'm like, "ok, look at this, look at this work. You need to become more focused…" So I should probably do that more. I do that with the best and the worst, I think. I should maybe do it with the more mediocre ones, I mean just middle of the road. Because sometimes it's wonderful to sit there with the student and review their work. I do that with some really good students. And then I do it with the bad students who are like, I'm like, "you need to get serious! Look at this, it's all… you know? All mediocre. Rushed through." So I don't really spare them that much. I think sometimes later on I stay up at night thinking "oh god, was I too harsh with them?" But I think they know that I love them, and they know that I'd do anything for them, but they know that I'm also pretty honest with them. If something looks like crap, I'm not going to say it doesn't. And I usually use the word crap. So I don't know. I don't think… they know when you're not being honest. They intuitively know when you are not being honest with them. So I should probably… It would be nice maybe I should reflect upon how I could maybe get maybe others to do their portfolio, or maybe could even have as simple as a student next to them look through their portfolio and talk about it, you know, maybe that would be something to critique… It would be nice if the portfolio wasn't such a secret thing, you know? Sometimes they're even amazed that someone would even know that they're in a class, like they had their portfolio… Like, "oh, could I see their portfolio?" sometimes students want to see their friend, and then they immediately want to see their portfolio. It's just a good marker of what they're doing in the class, who they are, and is their secret side of them too, because artwork brings out a side that maybe their friends didn't even know, which is interesting. So I don't know, I'll have to reflect on that. Would be nice to have more transparency with the portfolios. More of a way for them… They don't take stock of things until someone else takes stock of it for them, in a lot of ways, for most of them, that I've noticed. Does that make sense?

B: Yeah, it does.

CS: Maybe we're all like that.

B: I've noticed that in my classroom. And then it just takes a little bit.

CS: Yeah, doesn't it? I know. They're so funny that way. I love that. What are some of the challenges presented by … do you mind if I go on?

B: No, please, I like this. Do-it-yourself interviewing.

CS: What are some of the challenges presented by the portfolios or difficult…

B: Perhaps like storage space. I know you seem to have… it seems to be working out for you, you have the space there.

CS: Yeah, I luckily do. I do. I think the challenges of the portfolio I think are that I wish that I can… Ultimately they're sort of in charge of things. They keep it really messy. If they don't sort of honor their work, it's hard for me to follow up and honor it for them. So I guess that's one of the things that it just becomes very messy. But that's really the only… But I think it seems to be working for me. It gets a little harder as you continue with matching… Because they can't put the wet work in the portfolio, so I have to let it dry and crack and then take it out for them, and then they find it, so that's important as well. So that's been a little bit of a challenge.

B: Is there anything else you want to tell me about portfolios that you didn't get a chance to say?

CS: Why did you focus on portfolios as your topic?

B: I like portfolios as an art teacher, and I've taught drawing and painting and art and multimedia, and storage and kids' work and what is the best system to grade the work – do I keep it in a portfolio, do I grade it week by week, do I look at a review, do I go electronic, do I post it on the web? I've always been kind of reinventing the wheel every few years.

CS: So when you're talking about portfolio, you're basically just talking about the body of work.

B: The body of work, yeah. For my three dimensional students, because I'm into ceramics now, when the digital photography came out and I had my first camera, I had a few advanced kids and I didn't know what to do with them for the final, and I thought, "I know what I'm going to do. I'm going to make them take pictures of their work and put it on the PowerPoint®, because I have twenty five that are ceramics one two, and ten that have already been there done that, and are making different level stuff," and I thought that was my beginning of the portfolios with 3D, and I thought this is perfect, because I can't tell you how many ceramics projects over the years I've broken, and it was a nice way to catalogue their growth as an artist. So I started off easy. It was just something I

threw together at the last minute to keep those kids engaged. And then I've kind of run with it, and now I actually burn a CD so everyone in my advanced class gets a CD of the electronic portfolios, and I have them do a voiceover, and things like that. But that's just the advanced kids, not the intros. But I kind of think, you know what? Maybe I should start with the intros. The end of the year you pick one piece and tell me something about it, out of your body of work. Pick one, just to get them warmed up. And then if you're going to stay in advanced, then we up the stakes a bit.

CS: Do you give them a list of questions that they…?

B: I do, yeah.

CS: So it is directed.

B: Yeah. And they veer off, but it's ok because it's interesting to see those kids.

CS: I'm talking stream of consciousness. I did it with the kids, with these questions probably all over the place.

B: Ok, basically, I'd like to look at some of things, and then I was wondering if it's ok if I think of anything that I'd like to ask you if I could email you again and ask you if you have anything that you get this, driving home, "I should have told her!"

CS: I'm really trying to think if there's any other issues with work. You know, one thing I'm really struggling with is getting the stuff graded and back to them in a more timely fashion. When you're sort of coming up with lesson plans and then doing all the administrative stuff, and then something kind of has to give, and it's hard to be on top of the grading while at the same time making sure that you're sort of honing your lesson plan. So I've been finding that it would be nice to get their work back to them a little bit faster than I do. I usually take probably three weeks with their work, graded and back to them, so that's something I've been struggling too, and I think that's a really important part of the portfolio, to get them to review it and get them to sort of see how that worked out for them, so hopefully that can translate to the next assignment. Because by the time I get it back to them they've almost forgotten, so that's been a real struggle I've had with the portfolio. Assessments and stuff like that, it's… That's all I have to say.

B: Ok.

CS: But if you think of something.

B: You said quite a lot.

CS: Yeah, I guess I like to hear myself talk. Anything else?

B: No, actually, we can conclude this.

Appendix N

Kathy Rose (T2)

Appendix N

Visual-Arts Teacher 2 Description

Kathy Rose is in her 25th year of teaching visual arts and implementing portfolios. Kathy Rose is the Visual-Arts Department Chairperson at Henry Thoreau High School. Ms. Rose mentioned that has been teaching ceramics full time as Chairperson at Henry Thoreau High School for years but due to the construction of the new ceramics studio, Ms. Rose was teaching two-dimensional art.

The temporary visual-arts classroom I observed had once been a typing room. The corner of the building classroom had windows facing two different streets. The south wall was filled with old wooden cabinets, shelves, and a counter with one small sink. The north wall of the classroom had three tall metal storage cabinets and windows. On the east wall was a white board with the assignment clearly printed. The floor beneath the white board was filled with stacks of moving boxes. To the left, a television (TV) mounted on a locked cabinet that contained the computer. To the right, near the door was the teachers' desk. I asked the teacher where all of her ceramics equipment was stored during the construction of the new ceramics studio and she told me that she left it in the middle of the old room with a tarp over it. Above the door to the classroom, the Henry Thoreau High School Expected School Wide Learning Results (ESLRs) were posted and clearly indicated:

> ESLR 5. Critical and creative thinkers who:
> Employ higher level thinking skills such as analysis, synthesis, application, and evaluation in effective problem solving.
> Use imaginative ideas to create products or performances through the use of speaking, reading, writing, listening, and teaching.

Visual-Arts Classroom Activities Teacher 2

When I entered the classroom, the 35-minute class period had just begun. There were 3 adults in the classroom when I arrived, Ms. Rose the visual-arts teacher, one male visual-arts student teacher, and one female paraprofessional. There were 24 students (12 boys and 12 girls) seated at 4 table groups. The drawing students were busy working on his or her assignment, "Color Chart, Value: The lightness or darkness of a color." Each student was seated, layering colored pencils on an 8 1/2in. X 11in. sheet of white paper that had been divided into bands of equal one inch sections. A few students had a textbook (*The Visual Experience*) open on his or her desk and were looking at the assignment directions and color picture example in the textbook. Each student had a white folder (about 12in. X 18in.) at his or her desk with his or her name, class period, and table number on the folder.

During the classroom observation, I was surprised that Ms. Rose told me that her students were waiting for me to examine his or her portfolios. I asked the female student seated near me if I could look at her portfolio. The first portfolio did not contain an example of student writing. Ms. Rose led me to a seated male student and suggested that I observe his portfolio. The second portfolio contained 46 examples of art assignments (observational drawings, still life, portraits) created in a variety of media (pencil, pen, colored pencil, ink). The second portfolio did not contain an example of student writing. Then Ms. Rose led me to a seated female student and suggested that I observe her portfolio. I sat down in the seat next to the female student and asked the student her permission to look at the portfolio. The third portfolio exhibited an example of reflective writing stapled to a pencil drawing. Two male students seated at this table offered me

portfolios. I asked the three students seated at the same table for permission to photograph the examples of reflective writing. As I digitally photographed the work, I noticed that the teacher, student teacher, and paraprofessional were gathered together whispering and watching. At the end of the 35-minute class period, each student placed his or her in- progress work in the portfolio, and then placed his or her portfolio on a shelf in the storage cabinet. Ms. Rose dismissed her students; no bell rang to indicate the end of the class period.

Document Examination for Visual-Arts Teacher 2

Ms. Rose gave me a manila envelope filled with signed parental permission slips and course documents (CD 1-5). References to course documents (CD) are indicated in the text by page number of the specific transcript within the raw data of my study. Ms. Rose provided me with a copy of the Advanced Art Final Project (CD 3) handout. Upon inspection of the final examination documents, there was evidence that students were able to reflect upon a body of artwork, identify artwork in his or her portfolio, use the language of art (the elements of art and the principles of design), discuss the technical properties that were evident in the work, and describe individual strengths and weaknesses in paragraph form.

Portfolio Examination for Visual-Arts Teacher 2

At Ms. Rose's suggestion, I asked five students permission to examine his or her portfolios. The five portfolios contained all of the assigned art projects that the students had completed to date beginning in the Fall of 2007. For example, one portfolio contained 46 examples of art assignments (observational drawings, still life, portraits) created in a variety of media (pencil, pen, colored pencil, ink). Of the five portfolios

examined, there was evidence to support the student's reflection upon the artwork, describing his or her artwork, and critiquing the artwork exhibited his or her portfolio.

Interview with Visual-Arts Teacher 2

The primary aim of the interview was to gain an understanding of Ms. Rose's instructional strategies that enhance students' reflective-thinking upon the artwork exhibited in the portfolio. At the end of the class observation period, Ms. Rose suggested that we go to the faculty lunchroom to conduct the interview during her preparation period. Ms. Rose brought one folder that contained the artwork of several students that she planned to put on the school website. Ms. Rose discussed some of the positive learning benefits of portfolios, "Get them used to writing about art, thinking about art, because they don't know how to do that, … and part of teaching art is getting the kids to evaluate the work for themselves, make decisions about what's good, what isn't so good, and make decisions about when they need to do some revision, on his or her own."

Purpose of the Interview: Exploration of teacher's perspective of student portfolios
Time: 9:15-10:15 AM
Date: April 3, 2008
Place: Henry Thoreau High School Faculty Lounge, San Francisco, CA
Teacher: Kathy Rose (T2)
Number of years teaching visual arts: 25
Number of years implementing portfolios: 25
Type of portfolio: Traditional

Barbara (B): I only have ten questions. So I can record you?

KR: Yes.

B: Ok. How long have you been teaching?

KR: This is my twenty fifth year.

B: Twenty fifth year. And how long have you been using portfolios?

KR: Probably, I've been using different kinds of portfolios probably the whole time I've been teaching. So I did portfolios with the appropriate thing, but that was the arts school I did portfolios… not the new definition of portfolios they're using now.

B: Ok. Um, how would you describe the ones you use in your classes?

KR: One would be process portfolio, which is sort of a rough portfolio; the kids use it as they work to store their work, to keep their work in, and they also use it to review. When you look at that packet I gave you, you see the tests, and I gave them their written assignments for assessment, and they look through their work in their portfolio. Rather than having the kids take the stuff home, they'll keep their work for a grading period or a semester. And it was lucky that, I was going to have them take it home, but I had them hold it for you…

B: Thank you very much.

KR: So a process portfolio, and then by the end of the year they'll decide what the best work is and do a finished portfolio.

B: Ok. So how do the students select the artwork in their portfolio? So in the beginning it's everything…

KR: And I also gave you, you can look at these sheets of paper that are guidelines for them, so they have guidelines, so they have to do that, and also the worksheet from San Jose State, that talks about sensory qualities so there's quite a bit that they have to think about.

B: Good! Which leads me to the next question: How do you encourage your students to reflect upon the artwork in their portfolios?

KR: They have a set of questions that I choose, and that they have to answer, and so they have time to work on them, and maybe sometimes they're looking at two or three drawings in the portfolio, and sometimes they're looking at the whole portfolio, but I try to give them maybe an assignment where they're looking at one drawing and they're writing an assessment of it. Get them used to writing about art, thinking about art, because they don't know how to do that, and then maybe another assignment to look at two pieces, three pieces, and then the other thing too, I have them trade with another student, so the other student…

B: I saw that in the portfolio.

KR: Oh, ok.

B: I did. I liked that. What are some of the benefits presented by the portfolio?

KR: Well, so students can see stuff over time. Also so students understand the process that art is used to put together a portfolio. And some of them will be applying for art school, and will get into art school because of the portfolio, so that's an intrinsic part of an art class, I think, is to do that. And there's also been a lot of interesting alternative assessments, so I've, it's amusing to me that people, English and History and stuff, use our terminology and try to use our ideas, that to me is art. The portfolio comes out of visual art. But I have used it for alternative assessment, and that's how it sort of winds its way into… and they ask us to find other ways of assessing than just question and answer, you know? and I gave you examples of that.

B: What are some of the challenges of the portfolio?

KR: Kids are not organized. And it's the same with… I have them keep binders, and in the binders they have notes from my lectures, they have notes about art history, they have instructions that I give them. They also have a sketch assignment every week in their binder, and the binders and portfolios it's important that they learn how to organize them, to keep them going on their own, and kids are sort of scattered. I don't know if it's the age or the times we live in, or what the reason for it is, but I think it helps them to be… I think also, when they look at other students' work, they value the artwork, they get a sense of value from the work, and it slows them down a little bit, because in my opinion schools are little factories. We have a traditional schedule here, so we may go to block scheduling later, but it really is they're going from one class to another to another, so there's a lot of overwhelming things that they have to do I think, so I think if they have that place in the classroom, where it's their stuff, and it's constant, and part of teaching art is getting the kids to evaluate the work for themselves, make decisions about what's good, what isn't so good, and make decisions about when they need to do some revision, on their own, without so much the teacher being the leader of the thing, so they can start to have control. I think of the art room as a special environment, and I think the portfolios in displaying their work and all that really helps that. And pictures of them, you know, to give them a place in school where…

B: Who sees the portfolios?

KR: The students. And a lot of time other students; their friends come in from outside and look at the portfolios. In a normal year we have a large exhibit, but this year not. And then when we get the website up, a lot of people see the portfolios. Other teachers. You know, we have a professional development thing at our school… I mean, probably every school in San Francisco has a day, and so we sometimes sit down as a department and share what we've done, and sometimes the portfolios come out and we talk about assignments that we're doing with our students and stuff.

B: Is there anything about portfolios that you'd like to tell me that I haven't asked?

KR: I don't think so. I can't think of anything.

B: Well, if you think of anything after I leave and drive away, you can email me. Since you gave me such a packet and I haven't had time to look at it, perhaps if I have questions I can email you?

KR: Sure.

B: Thank you very much. I very much appreciate your time and your thoughts.

Appendix O

Jenny Wren (T3)

Appendix O

Visual-Arts Teacher 3 Description

Jenny Wren (T3) has been teaching visual arts 13 years and implementing

traditional portfolios 11 years. Ms. Wren currently teaches photography and ceramics at

Pioneer High School, a rural public high school. I observed Ms. Wren's Photography 1-2

class and I examined portfolios developed by the Photography 1-2 students. I observed

the photography classroom (approximately 20ft X 25ft) and adjoining darkroom (with 12

enlargers and a small film-developing area). The north wall of the classroom was

dedicated to indoor photography. Hanging from the wall were black and white curtains.

A tripod, studio lights, umbrella stands, and a ladder were stored in the corner. Each of

walls of the classroom was filled with black and white photographs mounted on colored

matt board. Each photograph had a label with the student's name. On the back wall of the

classroom hung a 24in. X 36in. poster board that clearly indicated in hand-lettered black

felt-tipped pen: "Portfolio Requirements: Handouts, Trackers, Negatives, Notes,

Reflection, Review."

The west side of the classroom was filled with windows, low storage cabinets,

and a long counter filled with a colorful assortment of matt boards, a light table, a paper

cutter, and glue. The students were in the process of placing work in his or her binder and

placing the completed portfolios into a box underneath the chalkboard for a grade. The

portfolios were due the following day.

The south wall in the front of the room was the teacher's desk, four computers,

three chairs, two printers, one stereo, one TV, and one VCR. Near the door to the

darkroom mounted on the wall was a set of eight plastic shelves. Each shelf contained a

stack of numbered handouts, assignment instructions, and questions that Ms. Wren called "trackers." Behind the teacher's desk wall was the white board. Between the white board and the door to the classroom, posted on the bulletin board was the school schedule, and laminated posters of the Pioneer High School Mission Statement, and the school Expected School Wide Learning Results (ESLRs). The Pioneer High School ESLRs indicated Critical Thinkers who "Demonstrate practical application of knowledge apply complex problem solving processes."

Visual-Arts Teacher 3 Classroom Activities

The fourth-period Photography Class contained twenty students (8 boys and 12 girls). The teacher used the computer on her desk to take roll. The students were engaged in several different activities, seated working on portfolios, mounting prints in the back of the classroom, or in the darkroom printing photographs. The teacher reminded the students that the portfolios were due the following day. Ms. Wren announced to the class that because the paper supply was low the students were limited to printing only two photographs. As I walked about the classroom, I noticed that many of the students were working on the portfolios, filling in the worksheets, and placing the numbered worksheets in the portfolio binders. Other students were in the darkroom printing. In the front of the classroom, one female student sat at the teacher's desk looking at prom dresses on the Internet. Next to the door was a sign-out sheet; one male student signed himself out of class. As the period went on, a few students deposited his or her portfolio binder in the box. A small group of students began to gather around the female student seated at the computer looking at dresses. The teacher moved about the classroom and darkroom and

reminded the students that his or her portfolios were due the following day. The bell rang and the students left the classroom.

Visual-Arts Teacher 3 Document Examination

Ms. Wren provided copies of pertinent photography course documents (CD 8 to 19): Art Portfolio handout (CD 8), Portfolio Introduction (CD 9), Project Completion and Quality Tracker (CD 10), Looking Up (CD 11), Contact Prints (CD 12), Solarization (CD 13), Small Litho/Shape (CD 14), Line of Sight (CD 15), Out of Place (CD 16), Framing Your Subject (CD 17), Photo Portfolio Review 2 (CD 18), and Portfolio Reflections (CD 19).

The Art Portfolio handout (CD 8) described the three important parts to the portfolio: the introduction or personal scrapbook, individual project rubric sheets, and assessment sheets. The Portfolio Introduction (CD 9) stated, "A portfolio is a kind of scrapbook." Students were instructed to "assemble it in any way you wish using a notebook or loose-leaf binder" and to "give it personal touches of artistry, decorating it with patterns, pictures or color, etc." The Project Completion and Quality Tracker (CD 10) helped students keep track of the projects by checking the completed items in the appropriate boxes, for example:

Project 1	Shot	Developed	Reshot	Enlarged	Not done

and filling in a bar graph from 0 to 100

Scale of 0 to 100	Subject	Composition	Contrast	Personal Value	Personal Meaning

Looking Up (CD 11) provided a one-paragraph description of the photography assignment that required the students to "view something from an unusual angle." In

addition, the one sided poorly printed handout contained 6 questions and small spaces for the students to write in their answers. Two 2 1/4in. X 1 1/2in. boxes labeled "Before" and "After" for students were to indicate "6. What did you crop off when you developed the final picture?"

The Contact Prints (CD 12) handout provided instructions to make contact prints of negatives. Students were required to attach the strip on negatives to the handout and to answer one question, " How would negatives with uneven density effect your finished contact print?" The Solarization (CD 13) handout listed a ten-step procedure for students to select an image, solarize it, and place the image on the handout in a space measuring about 3in. X 3in. Similarly, the small Litho/Shape (CD 14) listed a 9-step procedure asked four technical questions pertaining to Ortho/Litho film and provided a place for the students to "honestly rate yourself in the following areas: (1 low and 5 high) Contrast, Composition, Focus, Subject, and Quality." There was a small space in the lower right hand corner of the handout to "place your negative here."

The Line of Sight (CD 15) handout provided students with an opportunity to create an image that has "a line of sight the viewer has to follow." The handout included six questions and spaces for the students answers, three of the questions encouraged students to reflect upon the their artwork, for example question 4. What kinds of problems did you have shooting this assignment? 5. Did your "work" turn out as you planned? 6. Can you honestly say you can take pride in it, why or why not? The Out of Place (CD 16) assignment required "that the image fill a majority of the viewing surface and demonstrate good contrast between subjects." Question 2. "Would you consider this photo successful, and why?" The teachers warns, "A simple yes/ no will not do" and

encouraged students to reflect upon the their artwork. Again the Questions "5. Did your

"work" turn out as you planned?" and 6. "Can you honestly say you can take pride in it,

why or why not?" are asked. Framing Your Subject (CD 17) encourages students to use

existing objects to frame or introduce the subject; three of the questions were technical,

and Questions 5. and 6. appear for the third time.

The Photo Portfolio Review 2 (CD 18) provided students with a list of the

required portfolio contents (introduction, handouts, trackers) and the possible point

values for each. Students were instructed to indicate if they "have enlarged and image

circle "E." If the image is framed then circle "F" beside each of the assignments listed on

the sheet.

The Portfolio Reflections (CD 19) handout instructed students to look through

their portfolio, select two images that "will not be returned to you," and answer the 2

questions by the end of the period. Question 1. What makes work "Quality Work"?

Four lines were provided on the handout for students to write their response to the

question. Question 2. "Choose a subject that has some meaning, value, and worth to you.

What is it about this picture that makes you feel you were successful? Simply saying "I

like it" will not do. Your response should include why it has value, using terms like

contrast, focus, subject matter, lighting, composition, and so on. A minimum of two

paragraphs is required." Ms. Wren explained that she has kept all of her former students

Portfolio Reflections, although she did not provide me any copies to examine. From the

photography course documents observed, there was evidence that Ms. Wren provided her

students with opportunities to reflect upon the technical processes of photography. After

examining the photography portfolios, there was no evidence to support either the students describing their artwork or critiquing the artwork.

Visual-Arts Teacher 3 Portfolio Examination

From the photography portfolios reviewed, there was evidence that Ms. Wren provided her photography students with opportunities to reflect upon his or her artwork. There was a space on several of the assignment handouts for the students to attach his or her negative or photos in a 2 1/4in. X 2 1/4in. space. One student's (SW 15) portfolio binder exhibited four 3in. x 3in. and one 3in. x 5in.. The photography portfolio binders that I observed did not include any enlargements neither 5in. X 7in. or 8in. x 11in. black-and-white photographs. Of the portfolios examined, there was no evidence to support the student's describing his or her artwork or critiquing the artwork exhibited in the photography portfolios.

Interview with Visual-Arts Teacher 3

Ms. Wren and I conducted the interview during her preparation period in the photography classroom. Ms. Wren discussed the instructional strategies she uses to encourage students' reflective-thinking upon their artwork, methods to assess the artwork, the benefits, and challenges of portfolios.

Purpose of the Interview: Exploration of teacher's perspective of student portfolios
Time: 11:00 AM-12:00 PM
Date: March 13, 2008
Place: Pioneer High School
Teacher: Jenny Wren (T3)
Number of years teaching visual arts: 13
Number of years implementing portfolios: 11
Type of portfolio: Traditional

Barbara (B): Do you mind if I record you?

JW: No.

B: Good. I'm going to ask you about ten questions about portfolios. If you don't feel comfortable answering the questions, you don't have to. Don't feel obligated.

JW: Ok.

B: How long have you been teaching visual arts?

JW: Twelve years.

B: Twelve years.

JW: Thirteen. This is my thirteenth year.

B: And how long have you been doing portfolios?

JW: Eleven?

B: Ok…

JW: I started developing about eleven years ago, but I don't think they've really been working well. I mean, they work, but not where I was totally incorporating them into my curriculum. That's been about eight years.

B: How would you describe the portfolios used in your classes? I use the traditional or web-based… you're more traditional…

JW: Traditional. How would I describe them?

B: Well, it's actual pieces of artwork, kinda…. Well, you have digital too, don't you?

JW: Mm-hmm. I think it's a comprehensive collection of, body of work that allows the students to be reflecting and to have a reference to clarification.

B: How do students select artwork in their portfolios?

JW: Open-ended assignments that are somewhat prescribed. Under subjects, and then they create, they fulfill that open-endedness within the subject.

B: How do the students reflect upon the work in their portfolios?

JW: They have actual written, reflective writing, comparison and contrast. They also on an assignment basis fill out bar graphs and charts that both the student and I use to communicate with to see if we're on the same page. And I also use it as… what is it where you exchange writing with students? In their portfolios, we exchange them back

and forth, so they write notes to be and I'll write notes back to them, a more one on one experience.

B: How do you encourage your students to reflect upon their artwork?

JW: It's required. And through positive reinforcement and telling them what a great job. And I also select assignments that are enlarged, which is the reward, and then once every three assignments we do what's called the walkabout, where everybody puts up their best photographs and they literally have a prize box of small albums and picture frames and things that they get to pick from, so they… but they have to assess themselves. They vote on each individual work. And then about the fifth time they do that, we write the criteria they used on the board, and that's the criteria I use to grade their next set of assignments. So I'm turning it back on them. So that they're getting validated, they're feeling like what aesthetic judgments they're creating have worth and value.

B: What are some of the benefits presented by the portfolios?

JW: It makes the students very accountable. It allows me a very easy venue for grading. It's very prescribed. It takes some of the ambiguity out of art assessment and frees me up so that I can expand upon their creative skills.

B: Who sees the portfolio?

JW: Anybody I can get to look. Sometimes parents. I take them to NCAP, Northern California Art Project. I share them there, mainly. That's a really good group of people. And it's good because you can kind of cap on other people's enthusiasm, and kind of get some ideas from teachers.

B: Yeah. I'd love if you were in my group.

JW: It's fun!

B: What are some of the challenges presented by the portfolio?

JW: Getting students to buy into it. And teaching the students organization skills. So I don't think that they have the ability to organize… I mean, it's a really good thing, they end up being better for it, but it's a challenge to make sure that they really are organizing it. You have to be on top of it. And the other challenge is grading 100 portfolios at a time, which is usually taking up every holiday that I have…

B: Yeah, I notice that you're going on vacation, and is this how you're going to spend your vacation?

JW: It's how I spent Thanksgiving break, and Christmas break no, but Easter break… I come in every week we have off, usually. It takes me about… The first time takes about 18 hours. And now it's more of a check off list because I'm making sure they're staying

on top of it, so I'll probably spend 8 or 10 hours on it, which isn't bad. The payoff is way, way above it.

B: So how many students do you have that you're going to go through these portfolios? A hundred?

JW: A little over.

B: Is there anything else you'd like to tell me about portfolios that I didn't ask?

JW: It's the best thing going. I love it. I wish everybody would do it. I haven't shown a portfolio to any art teacher that wasn't thrilled, and when I show them to people who teach ceramics, they love it, because you can't store all that work. They cannot be… I mean, you'll ask a ceramics kid, well, what did you do when you did your first project? Let's compare your first project to the work you're doing now. And they go, "I don't remember my first project." Where with the portfolio, if you, especially if you work in digital images, and then worksheets that they're answering about the projects, they're instantaneously reflective. The benefits are just wonderful. Organizing… yeah. It's a little more difficult to get ceramics students to buy in on it, but I'm working on it. It's real accountable. I've used them in parent conferences, and it's very clear. Their body of work is right there. I love them. I wouldn't do it without it. It makes grading so much easier. Big time. Anything else?

B: No, that's it. If you think of anything about portfolios that you go, lightning bolt, after I leave, you can email me or drop me a note.

JW: The student accountability… When they have to stand there and they've got that sheet of paper in front of them in the book or whatever, I'll go "why do you think you have this grade?" but it's written right there, because you didn't do this, you didn't do this, and you did this, but you didn't do this. So there's a clarity that they get. They have to accept responsibility for their own, and that reflective part… that's why I use those, because that's all their doing, not mine. That's the main thing. What some of them write.

B: Ok!

JW: Cool! I've enjoyed… you.

B: I've enjoyed being here too.

JW: Because I never find anybody – I mean, how many people do photo and ceramics…. What a bizarre combination!

B: I used to do it in the same room!

JW: You're kidding! How did you do that?

B: Well, luckily, I had a neat group of girls. I taught at an all girls school. I'll turn off the interview portion now, but by nature they were a little bit cleaner and into cleanup. But the challenge was using the sink to develop the film, and …

Appendix P

Ken Tanaka (T4)

Appendix P

Visual-Arts Teacher 4 Description

Ken Tanaka has been teaching visual arts and implementing portfolios at Pioneer High School for 35 years. Mr. Tanaka currently teaches Ceramics, Art I/Art Appreciation, Art II/Art Appreciation, Advanced Art, and Advanced Placement Studio Art at Pioneer High School.

Mr. Tanaka teaches one ceramics class and five two-dimensional art classes. The ceramics studio was approximately 30ft. X 30ft. Adjoining the ceramics studio was a small office space with a computer and a kiln room (two updraft gas kilns and one electric kiln). The ceramics studio contained one TV and one VCR, four potters wheels, two pug mills, two slab rollers, two wedging tables, one extruder, one ban saw, one drill press, one buffer, one grinder, and many buckets filled with dry clay. In the back of the room was a sink with four water faucets. A portable bookcase held two class sets of textbooks (*Experience Clay and Beginning Sculpture*). One wall was filled with cabinets for students to store his or her work in progress; the opposite wall had windows, a low counter with supplies, and a tall display case filled with glazed ceramic pieces created by former students for current students to examine.

In the front of the room and above the white board, there were posters of sculptures on the wall. Near the door to the classroom, posted on the bulletin board was the school schedule, laminated posters of the Pioneer High School Mission Statement, and the school Expected School-Wide Learning Results (ESLRs). The Pioneer High School ESLRs indicated Critical Thinkers who "demonstrate practical application of knowledge Apply complex problem solving processes."

Pioneer High School's 2-D art room was approximately 30ft X 40ft In the front of classroom was a new wide screen TV, a projection screen, a counter with twelve tabletop easels, large posters of 2-D artwork, and student's artwork mounted on the bulletin board. The back of the classroom had built in storage cabinets. One side of the room was filled with windows and low storage counter space. The other side of the room had a white board with the terms symmetrical, asymmetrical, and radial balance listed. The walls were filled with posters. There was one computer on the teacher's desk in the corner by the storage room. In the middle of the room, there was a sink; surrounding the sink were eight tables. A portable bookcase was filled with one class set of textbooks (*The Visual Experience*) and other art books. Near the door to the classroom, posted on the bulletin board were the Pioneer High School Mission Statement, and the school Expected School Wide Learning Results (ESLRs).

Visual-Arts Teacher 4 Classroom Activities

The third-period ceramics class that I observed enrolled 27 students (8 boys and 19 girls). Some students were glazing his or her projects, and other students were working with wet clay. In the front of the classroom, two boys sat on stools doodling with black markers on the white board. Minutes later, the two boys volunteered to take the cardboard boxes to recycling. Toward the end of the class period, one of the boys returned to class. The teacher told the boy who returned to class to, " drop and give me twenty." The boy took off his backpack and did twenty push-ups.

While I was observing the class, the teacher put in videotape that he created on assessment. The 15-minute video included interviews with each of the teachers involved in the project and students in each of the arts courses. Mr. Tanaka explained that the

school district had received grant money several years ago for professional development in order to create a common district-wide assessment. The visual-and-performing arts teachers communicated and collaborated in order to create a six-level assessment tool.

During the video presentation, the students worked on his or her projects in the dimly lighted room. After the video, I walked about the classroom and noticed that each of the students was working on a project, either working with wet clay or glazing. The last ten minutes of the class, students began putting away projects and washing his or her hands. Many of the students left the tools and supplies on the desks.

The sixth-period two-dimensional Art I Class enrolled 28 students (12 boys and 16 girls). Mr. Tanaka stood in front of the classroom with an overhead projector to project a copy of the worksheet (CD 7) on the screen. The students were instructed to have a critique sheet and his or her finished artwork in front of them. Mr. Tanaka used a piece of paper to cover some of the worksheet image and to help students focus his or her attention on the area of the worksheet he was discussing. Mr. Tanaka read each a section of the worksheet to the students and explained to the class what they should be filling in on the worksheet. For example, the first item on the worksheet "Description, title of the work and the artist name:" Mr. Tanaka told the students to write in "Positive and Negative" and write his or her name in the space. "The medium:" Mr. Tanaka instructed his students to write "watercolor" in the space provided on the worksheet. He explained to the class that it was important to remember the paper type: "80lb. Paper." The teacher told the students to "Write down two creatures for subject matter." For "Art Elements," the teacher told his students to "Just put down vertical lines." For "Color and Value," Mr. Tanaka told the students to "Just put down dark and light or warm and cool."

During this activity time, I noticed that some students had the critique worksheet, his or her finished art projects, and were filling in the worksheet as instructed by the teacher. Many of the other students were neither looking at the screen, looking at the teacher, nor completing their worksheets. At one table, there were four students (two boys and two girls) seated. The two girls sat with their backs to the teacher and did not appear to be looking at the screen or the worksheets. The boys faced the girls. None of these students appeared to be following the teachers directions that requested for the students to have the critique worksheet and their finished art project on their desks and to complete the critique sheet along with the teacher. One girl sat with earphones, watercolors, and a short stack of 8-1/2in. X 11in. white paper. On several pieces of paper, she wrote her name lightly in pencil and then painted her name in watercolor. Dissatisfied with her work she crumpled several sheets. After several failed attempts, she painted her first and last name in black watercolor and then splattered painted a variety of different watercolors on her paper much to the dissatisfaction of the students seated next to her who were getting her paint spattered on them.

Visual-Arts Classroom Activities Teacher 4

When I arrived, Mr. Tanaka was conducting group-discussion portfolio reviews. One by one, students volunteered to put his or her artwork on display on the twelve tabletop easels on the counter in the front of the classroom. The seated students were encouraged to look at the artwork and help the student to arrange the artwork beginning with the strongest pieces placed near the teacher. The pieces that were not as strong as other pieces were turned over. The discussion was lively as students agreed or disagreed with the selections being made. Some of the students were engaged fully in the process.

Other students in the class were working on radial balance projects but also looking at the display of student work and listening to the lively discussion throughout the class period. Mr. Tanaka guided the discussion with probing questions to promote his students observation of artwork and encourage discussion of the artwork, for example:

Tanaka: "Which do you think is the best use of color?"

Student: "Contrast colors."

Student: "Hot and cool."

Student: "A little warmth."

Tanaka: "Really good contrast."

Tanaka: "What else do you see there?"

Student: "Shading"

Student: "A lot more texture."

Tanaka: "Balance?"

Student: "That one is centered."

Tanaka: "What kind of composition? Symmetrical? Asymmetrical?"

Tanaka's activity promoted the student's observation and discussion of artwork. The students were involved in the process of helping other students to select his or her best artwork. Not all of the students were involved actively in the discussion or rating process. A few students dominated the discussion. A few students were able to use the elements of art and the principles of design in his or her responses.

Visual-Arts Teacher 4. Document Examination

Mr. Tanaka provided me with several course documents, the Visual Arts Department course descriptions, the Department Philosophy (CD 6), and a copy of the

critique sheet worksheet (CD 7) that I had observed upon my visit to the sixth period 2-D art class. The critique sheet provided a space for the students name, period, and space to "paste digital photo here." The handout was divided into sections with several prompts in each section for Description, Subject Matter, Art Elements, Color and Value, Analysis, Interpretation, Hypothesis, Judgment, Historical and Cultural Contexts, and Summary. I observed Mr. Tanaka reading each a section of the worksheet to his sixth period students and telling the students what they should be circling or filling in on the worksheet as he had mentioned in the interview.

Visual-Arts Teacher 4 Portfolio Examination

The portfolios of student artwork from the Art I/ Appreciation course that I observed contained an average of thirty pieces of work in a variety of media created over the course of the school year. Of the portfolios examined, there was no evidence to support the student's reflection upon the artwork, describing his or her artwork, and critiquing the artwork exhibited in his or her portfolio. No portfolios observed in the ceramics class.

The portfolios of student artwork from the combination Art II / Appreciation-Advanced Placement Studio Art: Two-Dimensional Design course contained from six to sixteen pieces of two-dimensional artwork in a variety of media created over several semesters. A few of the students were creating artworks to meet the Advanced Placement Studio Art: Two-Dimensional Design portfolio requirements. Of the portfolios examined, there was no evidence to support the student's written reflection upon the artwork, describing his or her artwork, and critiquing the artwork exhibited in his or her portfolio.

Interview with Visual-Arts Teacher 4

The primary focus of the interview was to gain an understanding of Mr. Tanaka's instructional strategies that enhance students' reflective-thinking upon the artwork exhibited in the portfolio. Mr. Tanaka and I conducted the interview over lunch in the 2-D art room. Mr. Tanaka's discussed the instructional strategies he uses to encourage students' reflective-thinking upon and assess the artwork

> I use a worksheet, and on the worksheet it goes over a description, an analysis, interpretation, and then a judgment, and then I always add new things, so I put connections and relations and applications, how to connect stuff… art making history.

> I asked Mr. Tanaka, "Do students write their responses down?" Mr. Tanaka

replied, "No, they circle." He then added, "Circle and write." Mr. Tanaka highlighted the portfolio process he employs that is closely aligned with the Advanced Placement Studio Art portfolio requirements.

Purpose of the Interview: Exploration of teacher's perspective of student portfolios
Time: 12:00-1:00 PM
Date: March 13, 2008
Place: Pioneer High School
Teacher: Ken Tanaka (T4)
Number of years teaching visual arts: 35
Number of years implementing portfolios: 35
Type of portfolio: Traditional
                       AP Studio Art

Barbara (B): Ok, thank you for letting me interview you. I only have ten questions, but if you don't feel comfortable answering the question, by all means, you don't have to answer the question. How long have you been teaching art?

KT: 35 years.

B: 35. Wow. And how long have you been using portfolios?

KT: Pretty much the whole time.

B: How would you describe the portfolios you use in your class?

KT: Well, they're set up in three sections and it mimics the way our curriculum is set up. There's a breadth portfolio, which describes a breadth of experience, and that's twelve works. Our finals are portfolio-driven from those breadth portfolios in our beginning classes, so the kids will throughout the year replace pieces, with our quarterly reviews, so every quarter, they usually do about ten works a quarter, so by the end of the year they'll have hopefully close to forty works. And from those forty works in the beginning level, that'll constitute their breadth of experience. And I'm talking about 2-D. But in 2-D, they also have to, in that last final of the year, determine whether their work is more drawing or more design oriented. And then the second year, their portfolio has to be based on concentration. And again, this all mimics the AP portfolios.

B: Yeah, that's a good idea.

KT: And so to be a second year kid, they have to have their breadth, and they can still get in the second year but the contract is they have to finish their breadth. And then the second year they work on a concentration, a visual concern, some sort of focus, course of study, but that's supplemented with projects to… well, you see, my idea is that I'm a sensei, but I'm also a muse. I have to be a muse for my kids, so that the projects I give them are intended to help them choose a focus, or help them do things they wouldn't ordinarily imagine they could do. And then the last part of that portfolio, it's always an overall concern, is from their concentration and their breadth, they have to pick a quality, and so there's quality sense as well. And so that's their portfolio. It's based on a twelve-point rubric which I kind of set forth, and you know, there's six different levels, but the ultimate level is six, and I call that professional, and they can't get it at the beginning.

B: No.

KT: It's supposed to be, you know, there's life beyond high school kind of thing.

B: Like the stages of development.

KT: Yeah.

B: Stepping-stones. Well, you kind of touched on how the students select their work in their portfolios, so over the two year time it's kind of give and take, and…

KT: Well, each quarterly review the kids actually do a judging of the work. Well, actually, it's multiple levels of assessment. With every project that they do, we have a salon, if you will, and mimicking a salon of France where people talked about art, so I put that up, in order of what I think grades should be, and so that's an assessment, and then the kids argue, "well that shouldn't be up there!" and then we kind of collectively decide, I was wrong on that one, I was right on that one, so that's how we assess work. And then we allow the kids to take the work down based on what they heard and then work on it some more so they can reach the higher level. So assessment is supposed to improve instruction, not say I'm the art guru and this is what is art because I say it is.

B: So based on the feedback they have multiple opportunities to improve upon their work.

KT: Yeah. And then, the whole idea is, eventually they're going to do their own, self-directed learner! Which is the biggest picture of all, once we equip them with the skills they need to succeed. For some of the kids it's an opportunity to see how they learn something new.

B: Well, you've told me some of this already, how the students reflect upon their work in their portfolio.

KT: Well, we also do, kind of like an overall critique. I use a worksheet, and on the worksheet it goes over a description, an analysis, interpretation, and then a judgment, and then I always add new things, so I put connections and relations and applications, how to connect stuff… art making history and blah blah blah…

B: Do students write their responses down?

KT: No, they circle.

B: They circle.

KT: Circle and write. And then the very last thing that's in there is to, what's the big picture, what's the big learning, and then what makes it art? Or why is there art?

B: This is wonderful.

KT: Overkill, but…

B: No, not at all. So my next question is, how do encourage your students to reflect on their artwork in their portfolios. This is the handout, so there's multiple opportunities, this is pretty much individual and then you have the group critique…

KT: And then, part of the problem is, you don't know what the artist intended, so there's a section on their for intent or interpretation, so you get bonus points for telling me what did you really mean, and if I totally missed it…

B: What are some of the benefits associated with the portfolio? You've already told me some – the connections to life…

KT: Well, the main thing is it demystifies what the arts are. I don't want to have my kids go away with, well, I said it, I'm the art authority; instead it's more of a collaborative idea, and the decision is, people really make the judgments, and certain contexts might affect it, which is what the assignment might be, but other than that, it's just skill, it's focus, it's use of the elements and principles, and what you're intending to do. I mean,

they know if they're just trying to get a grade, it's not going to be a great work of art, but if their intent is really to develop a point of view, then they're going to be better. So, you know, overall focus.

B: Who sees the portfolios?

KT: We judge them, the parents are, they're supposed to bring it home after each quarter review, parents see it… and then eventually they're encouraged to save it and use it as part of an overall portfolio, like, you know, your writings… and you can show it to employers and say, "look, I never was very good at art, but if you see this portfolio you can maybe assess how I am trainable," and they don't see the management part, but…

B: What are some of the challenges presented by the portfolio?

KT: They're not really insurmountable. You just have to have a place to store it, so I make little butcher paper portfolios. And then getting the kids to be organized, to manage the portfolios, and then just keeping track of the kids' work by the end of the year, but that's not… and then with the program I use, one of my technology flops, I haven't been printing out… I usually give them two digital prints. One goes in there over time breadth portfolio, and one goes on their critique sheet, so there's a little handout…

B: A follow through. Is there anything else you'd like to tell me about portfolios that I haven't asked or that you haven't had a chance to say?

KT: Well… It's something that the arts have always been strong… What it does, it really helps a student to see the bigger picture, the whole idea of growth over time, and so when you have them keep their work, and work with it, they can actually see that yeah, if you do your best, your best actually gets better, and that's… I don't now if there's any other tool that can do that. And when they're always constantly making choices and updating what they think is their breadth portfolio, concentration portfolio, just, you know…

B: My next question is may I see some portfolios, so maybe after we eat out lunches we can do that.

KT: The kids in my next period class, they've agreed to put their stuff out, so maybe just before you talk to Jenny…

B: Oh, great, ok.

Appendix Q

Gloria Gomez (T5)

Appendix Q

Visual-Arts Teacher 5 Description

Gloria Gomez (T5) has been teaching visual arts for 22 years at Chavez High School, a suburban public high school. Ms. Gomez has implemented the International Baccalaureate Visual Art Program for 4 years. I observed two of Ms. Gomez's International Baccalaureate students' research workbooks and two-dimensional artwork.

The hallway leading to the visual-arts classrooms is lined with more than 80-framed and matted pieces of student's 2-D artwork in a variety of media. The 2-D classroom is approximately 1,480 square feet. Adjoining the classroom is an abandoned darkroom converted into a storage closet. Near the door to the classroom was a large built-in bookcase filled with books and magazines for students to examine. Near the door to the classroom, posted on the bulletin board was the Cesar Chavez High School ESLRs that indicated "Students who are becoming…2. Critical Thinkers -Formulate and explain rationale for his or her thinking -Analyze, synthesize, and evaluate information-Apply thinking skills to problem solving and decision-making."

Visual-Arts Teacher 5 Classroom Activities

Ms. Gomez and I had scheduled a classroom observation at 1:00 PM to be followed by a one-on-one interview. I arrived at the school office at 12:45 PM. The school secretary called the classroom to announce my arrival. Ms. Gomez did not answer the telephone. I walked to the classroom and was surprised that the classroom door was locked. I noticed that there was a note on the ceramics classroom door indicating that the students were at the assembly in the auditorium. I assumed that Ms. Gomez's art students were also at the assembly. I had the opportunity to look at the 80 pieces of 12in. x 18in.

unsigned black-framed art in the hallway. About 1:30 PM, a few students began to gather

near the art-classroom door. Ms. Gomez apologized that there had a sudden change in

plans. The student leadership group requested that the art students create chalk drawings

in the courtyard for Open House and provided the students with cases of sidewalk chalk.

The students had been working on chalk drawings in the school courtyard. Ms. Gomez

brought me to the area where 35-chalk drawings were in the final stages; students were

protecting the works with plastic wrap and masking tape.

I did not have the opportunity to observe students working on his or her projects

in the art room. When I was in the art room I was focused on conducting the interviewing

with Ms. Gomez. Ms. Gomez had prepared an art exhibit in the classroom for Open

House that evening. Each corner of the room had a piece of green material draped over

the furnishings. Each corner displayed several pieces of artwork. For example, one

female student had developed a series of twelve colorful abstract acrylic paintings. One

male student exhibited ten mixed media projects with a theme of global unity. In the front

and center of the 2-D art room was the teacher's desk, one computer, one printer, one tall

cart, one TV, and one VCR.

Visual-Arts Teacher 5 Document Examination

Ms. Gomez provided me with two photocopied International Baccalaureate (IB)

Visual Arts Candidate Record Booklets (SW 9 & 10). Each booklet contained up to

twelve color photographs of studio work and twenty pages of the students' research

workbooks. The candidates were required to write a brief (300 words maximum)

statement in regard to his or her growth and development as an artist in the IB Diploma

program. The International Baccalaureate (IB) Visual Arts Candidate Record Booklets

(SW 9 & 10) provided a set of questions that call for students to reflect upon his or her artwork, identify artwork in his or her portfolio, use the language of art (the elements of art and the principles of design) to describe the artwork, to identify media, to describe problems, and to indicate achievements in written form.

Visual-Arts Teacher 5 Portfolio Examination

Of the two portfolios examined, each contained documents (SW 9 & 10) with references to photographs of artwork exhibited in the portfolios. Both students were able to describe his or her artwork using the vocabulary of the visual arts to express his or her observations that included the size of the work, the medium used, the subject matter, and two or more of the elements of art or the principles of design.

Visual-Arts Teacher 5 Interview

I conducted the interview with Ms. Gomez during her preparation period and after school in the 2-D art classroom. Ms. Gomez discussed the instructional strategies she uses to encourage students' reflective-thinking upon, the benefits, and challenges of portfolios. Ms. Gomez told me she had implemented the IB sketchbook for four years but has had students keep his or her work in large folders "throughout the last 22-odd years." Ms. Gomez talked about the benefits and some of the challenges of portfolios.

Purpose of the Interview: Exploration of teacher's perspective of student portfolios
Time: 1:00-4:30 PM
Date: March 19, 2008
Place: Cesar Chavez High School High School
Teacher: Gloria Gomez (T5)
Number of years teaching visual arts: 25
Number of years implementing portfolios: 2
Type of portfolio: IB

Barbara (B): May I record you?

GG: Yes, of course.

B: Thank you very much.

B: How many years have you been teaching art?

GG: Well, I started in the district in 1985, so in the district it's been what, 22 years? And I had one year before that in the early seventies.

B: Ok.

GG: There was an in between, ten years.

B: Yeah. And how many years have you been using portfolios or collections of student work?

GG: Probably… well, I'll say definitely the four years with the sketchbook and the IB and that kind of portfolios. But before that, I would have students' work – I have drawers of students' work. So they would be keeping it in a large folder, so in a roundabout way, I've been having portfolios throughout the years, and I've also been having those books of information – you know, they bind their stuff together. So, informally, I'm calling it informally, but I had it throughout the last 22-odd years. Now that I'm thinking about it, with your question, I can open the drawers!

B: Oh, good!

GG: They leave it at the end of the school year instead of taking it!

B: Yeah! Get some of my good work that way. How would you describe the portfolios used in your class?

GG: You mean, how they're used in the class?

B: Well, no… I know you have… well, in my description, called traditional – actually pieces of student artwork…

GG: Yeah, the finished pieces of artwork are going into portfolios, and then they get framed, hung around the school – I did have a while a venue of, there was a coffee shop that we'd hang our work up. When they sold, then they're no longer there, and I know they have some down in the museum in Santa Clara, down there.

B: Wow.

GG: They have a little pod, and they were also, like there's two coffee shops down in Santa Clara also. So it became a traveling little show, students' artwork. So their best work was put out that way, but I mean, they kept them in a folder, so they would

choose… I mean, they had to evaluate. They would be writing evaluations. You know that, you and I when we were working out the four-step process?

B: Mm-hmm.

GG: So ever since we did that art multimedia curriculum, it's sort of like, oh, this is really, good, we can evaluate our work!

B: Great. Well, this kind of leads into my next question: How do the students select the artwork in their portfolio?

GG: Discussion, most likely discussion. Yes. I think, and also since they were keeping their work – this is the part with the portfolios – I said, you have to keep everything. Don't throw everything away, because I want to see how it progresses, how you started and where you are now. So that's how the portfolio is used most often.

B: Ok, well, you've already sort of answered this one too. How do students reflect upon their artwork in their portfolio?

GG: How do they reflect? Ok, I'm trying to think of what you mean… Like, we were just talking about it?

B: Yeah. You talked about discussion…

GG: You know, they sometimes pull out all their work, and they themselves I think see how they're progressing or not. Because sometimes they realize "oh, I have not really been improving!" Which has been a very, sometimes, eye-opener, for some kids, where they think they are doing better, but then they realize they still aren't drawing perspective correctly, for example. So it's a good way of reflecting. So I do more things on an individual basis, then let's say put out a piece of artwork and do a group discussion, because I think kids are fragile, and I don't think they would want to see… it's like, even on the board or even outside, I prefer them to have their names on the back. So, say if I'm discussing the piece, I can say how this piece was handled, and that piece was handled… If they want to go into the hallway and say "this was my piece," then that's their choice of pointing it out, rather than let's say some kids may not understand a modern piece of artwork, let's say, and they're laughing at it? Well, then the kid can then be quiet and not say it's his own, if it's in the hallway, as opposed to "there's this person's name, and what do you mean, I've drawn this big giant flower, and ha ha ha." So I try to be aware of if the kid would like his name, I can do that, but generally I don't post whose work is out there. I figure they can show themselves if they would like to.

B: That's a good idea.

GG: So anyway, that's another little mini philosophy there…

B: No, I like the work outside in the hallway. I was looking at it. And I liked your display system too. I thought you had a real… expensive one there.

GG: No, it's not!

B: Yeah! I could do that! No, it's a great idea. How do you encourage the students to reflect upon the artwork?

GG: Ooh. Hmm. I always, really, it's more like I'm talking to them and posing questions to them, so they start thinking about it… I'm just thinking, like when they're doing improvements, like when they come up and let's say this piece over here, we discuss what's going on and if they have very rough edges, then we're discussing where their improvements are and how they can handle it, so I think that's probably how I'm handling it, if I'm answering your questions… Does that answer your question?

B: Sure.

GG: It's more like on an individual basis. And I think they feel comfortable with that. And then I walk around the classroom and work individual. And what I've also noticed, kids also help each other, but I noticed none of them feel bad if I have to take longer with one student as compared to another. And I've noticed that in all my classes. Because sometimes when kids need more help in understand, and meanwhile they work! Too bad you didn't see working classes, but you know we're in… anyway, that's probably the other thing. I will use a judgment of those kids who can handle it in a couple minutes suggestion and they take the ball and they run, and those who might need a little bit more handling or encouragement. Sometimes they need encouragement. Because I'm looking at some kids, we have special ed kids, we have a variety who don't even speak English kids, so I am being very flexible with both the level and the fragility of some of these kids, and sometimes it might be just the encouragement of "oh, why don't you add a little bit of red to the green, and you'll get some other colors that might be exciting!" And then I hear in comments, "wow, look at all the greens I've created!" or whatever it might be, and they didn't know they could create just by adding another color to their, besides blue and yellow. So those are some cool little asides. So that's how I work, sort of, I feel like under the surface. Making a comment here and there.

B: What are some of the benefits of portfolios?

GG: Well, you see your progress, one. I think that's your big benefit. Two, it keeps all their work in one place, in a giant folder. Three, the best pieces get framed, so it's also encouragement. I think for the serious students who are planning to go on to the art field, keeping everything together so then they can easily take it with them at the end of the school year, so they could actually use it let's say if they want to go onto art school or photograph it or whatever they want to do. Some kids have done that. In a class, you know, when you think the hundred and fifty students, what is really the percent that is going on to art school? They're the ones who take it. The others, they don't always realize what they have, and they'd be more willing to throw it away, and I said, "don't

throw it away. Pile it here so I have my collection," for whatever reason. Because sometimes the kids don't value their own work. Sometimes they come back a few years later, asking for their work.

B: Oh, wow!

GG: Or their booklets, and I say, depending on their sketchbook, if it was a sketchbook that was pretty full, I do have a corner that I put them all in, and they can look through it and find their own, and I've had kids who've come back about two or three years later, looking, "can I have my sketchbook, do you have any of my artwork?" and I always say, "here's the drawer! You can look through it and find your folder," let's say, if it's still in a folder. Sometimes I take them out. So some have come back to ask. But I said, if you only had a sketchbook, and you only had like ten or twenty pages, I rip out those pages and I give the sketchbook to somebody else. Because there's so few things in it, and let's say, a color wheel, your basic assignments is usually not much, so it's usually how much was the book, and to what extent… So I tell them that sometimes, that it may have been passed on to another student that couldn't afford to buy a sketchbook.

B: Do they have to buy their own sketchbooks?

GG: I charge a lab fee at times, I have… included the sketchbooks. So it depends from year to year, how I feel.

B: Money comes, and…

GG: Money goes. Well, like this year, they're supposed to be binding it together, but I find that's less efficient than actually having a sketchbook, so I can go back to requiring a sketchbook for all my classes. Because I went back to the plastic binding…?

B: Yeah, I saw your…

GG: And it just, somehow those pieces aren't staying together and it's harder to see that progress, so, so much for that experiment for saving money. Never mind.

B: What are some of the challenges presented by the portfolio?

GG: Kids throwing things in the trashcan, which they really shouldn't.

GG: Like, "What is this in here?!!" right?

GG: Yeah, exactly. I think it's coming back to probably the kids' adage of we've finished our assignment and it doesn't matter anymore, and my answer is like keeping everything on the shelf. I want everything there. So they're not looking at the portfolio as the end of the school year we can see how our progress was. The kids don't have that concept, and maybe that's my lacking on my side of emphasizing maybe what a portfolio could be used for. So, you know, what is a portfolio? We're viewing a portfolio as something you

take with you to show off or use as possibly gaining employment somewhere or going onto your college. Kids look at a portfolio like this is my binder, like I use in other classes, it's a required binder. And at the end of the school year we can throw our required binder away. So it may be our societal philosophy that art is sort of not important?

B: May be.

GG: Just putting that as an aside. So the whole societal concept of, you know, we're trying to change that. But I think when I see things like this, and I have also framed students' work that could be marginal? I have one up here… This is a special ed kid, you know, and I look at it, she's excited about her artwork, and I said, "hey, draw for me, here is my frame," I have all these little cutouts because it's, what, frame for twenty pictures or whatever it is, ten pictures, and I want her to feel really good about herself…

B: I like it! It looks like she has the beginning of a little animation thing!

GG: Absolutely. And the kid is also suicidal, and she has some other problems, so you know, my adage is I want them to feel safe and comfortable and everything else, and save all your work, and I thought, this is a great little piece!

B: I love it.

GG: Other people may look at it and go, what are these little squares, Sponge-Bob-y, or whatever, but it's delightful. It's absolutely delightful. And my philosophy is to make this kid feel good, comfortable, safe, I don't want to have crammed in, this due date has to be on this day no matter what! I much prefer them to feel, challenging themselves to do the best they possibly can, and so again, you're saying portfolios, but to me it's a documentation of their work, and maybe they'll go back and look at their work and say, "this is how I felt at the beginning, and I can see art doesn't have to be I'm drawing the face perfectly. Art can be modern art. Art can be just mixing the colors together and being successful with it." So that's how I look at it. Next question?

B: Well, I forgot one that was supposed to be in the middle. Who sees the portfolios?

GG: The students and I. How's that sound? I mean, if they take them home then they're sharing it with whomever they want to share. But as far as when we're sitting in class, it's basically, you know, us. And then other pieces get framed and put out there. So that's not a portfolio, to me, that's already showing the artwork, a gallery showing kind of thing. So I guess there's a fine line, what is a portfolio, again? So does that answer your question?

B: It sure does. They're all winners. So we talked about the challenges… ok, anything you want to tell me that I haven't asked you about portfolios?

GG: I hate the name portfolio!

B: I know.

GG: Because I am the adage of a portfolio is something we're showing our boss, you know, we're applying for a job! And I'm using it loosely in a different way of a portfolio is a gathering of your work. So I think I don't like the work portfolio, at least for high school kids. That maybe there could be another work found for that. Because portfolio to me would be like, here you are in college, and you have your portfolio, and you are now presenting it for your BA and your Masters and whatever kind of high falutin level. Portfolio for high school kids is a whole different level. It is a gathering of your best work and showing work and keeping all your work in the portfolio and choosing your best work to be framed or shown to the public. So… and what is the public, it's at this level right now, or who can appreciate it, or whatever. Because I'm looking at, we're dealing with sometimes very fragile kids, and so that's where again I'm thinking of keeping it safe. Encouraging them so that when they continue they can either have an area where they can be comfortable with and safe in drawing, whatever level they are at, and it's not a portfolio per se that's going to go and "here, I'm going to a job at Denny's," or "I'm going to college and I'm taking" whatever it is… That portfolio might never be used. So that's why I don't like the word portfolio, because it's implying all hundred and fifty kids have a portfolio and they're taking it with them to show to get into college, and I don't, in reality, what is it, what percent? Five percent? I don't know what that percent would be. So, it's the word. I'm bothered by it. Can we find another word, Barbara? You're going for your PhD….

B: I think it's the buzzword of the time. Like, when I was a little kid we always kept our work in a folder, in art class it was still a folder, and then I got to college it was now my portfolio. It's still a folder, but…

GG: But maybe high school level should be, this is your folder?

B: Well, you know, folder, but you know, we are in the arts, and the portfolio is, and showing what they do…

GG: Showing what they do, yeah, but in reality a lot of kids aren't taking their portfolios with them, so…

B: That's true.

GG: So it's a different adage, kind of thing. And they haven't crossed that line of how it can be used maybe for the future. But those who are art based and going toward that, they see that as a portfolio and they take it with them. So who do we have in our classes? Who is our clientele? I look at it as what is our purpose within getting the right brain to be used more, so that you become the inventors and the philosophers? It's not rote memory? The total aside is this exam that we have to give for the, what was it, drawing the cones? The lights and the darks? I spent a lot of money buying those little cones and balls and Styrofoam things and whatever. And I deal with it totally differently for getting them to understand what are the… and so does San Mateo! That common assessment to me,

that's not where the kids should be at. We are the right-brained people. We need to have them think differently than what they would do in math classes or sometimes in English classes, or any of the classes. They need to be using that other side so they become the creative people. Because that's where you get your new inventions. That's where you get what's happening in the world. It's not your rote memory. It's the creative side that has to come out. So anyway, that's my little bandwagon. I do not like that assessment at all.

B: Yeah.

GG: Well, you had the cups! You were ceramics!

B: Mm-hmm. Well, we picked something, I felt… well, we're off the subject, but I'll close this portfolios…

GG: Are we finished with our portfolios?

B: Well, if you think of anything else you want to say about portfolios, you can always email me, because this is a work in progress. Thank you!

GG: You're welcome!

Appendix R

Lisa Chan (T6)

Appendix R

Visual-Arts Teacher 6 Description

Lisa Chan (T6) has been teaching 2-D and 3-D visual-arts for fourteen years and

implementing portfolios at for twelve years at Marina High School; a suburban public

high school located. I observed Ms. Chan's three-dimensional art class. I examined

portfolios developed by the Advanced Placement Studio Art: Two-Dimensional students.

The Marina High School building was constructed less than five years ago. The

modern 2-D and 3-D art rooms share a common storage room and office space. The 3-D

classroom is approximately 25ft X 40ft The east side of the classroom is filled with five

windows and low storage cabinets, that provided storage space for the many papier-

mâché projects in progress. The south wall was filled with cabinets and two sinks. The

north wall was filled with six columns of 35 flat storage shelves. Each class period had a

designated column. Each shelf was numbered for students to store his or her work.

Against the north wall were one drill press, one buffer, one grinder, and one soldering

station. In the middle of the classroom, four tall tables were arranged in a rectangle. The

tabletops were covered with large plastic drop cloths. Each wall of the classroom was

filled with student artwork: twenty-five 12in. X 12in. copper relief tiles, five papier-

mâché "dinner party" sculptures, fourteen masks, fourteen free standing 3-D fugitive

sculptures, and an assortment of small soapstone animal sculptures. Hanging from the

ceiling were batik mobiles. In the front corner of the room between the window and the

wall was the teacher's desk with one computer and one printer. In the front of the room

was a tall cart with one TV and one VCR. An LCD projector was mounted on the ceiling;

the screen was pulled down over the chalkboard. Near the door to the storage room,

posted on the bulletin board was 8 1/2in. X 11in. Marina High School's (MHS) Expected

School Wide Learning Results (ESLRs). The ESLRs indicated MHS

> Will prepare its graduates to be:
> 2. Critical Thinkers who
> Analyze, evaluate and synthesize information
> Develop rational problem solving strategies
> Make appropriate personal decisions
> Read, write and speak reflectively and critically
> Exhibit curiosity and creativity.

Visual-Arts Teacher 6 Classroom Activities

The 3-D Art Class contained 25 students (12 boys and 13 girls). The teacher

introduced the students to the silver-band-ring construction project. The instructions were

posted on six posters in the front of the classroom. Each student had a handout. The

teacher discussed project handout that was also projected on the overhead screen. The

teacher showed students examples of preliminary designs created by former students. The

students were encouraged to finish up the previous papier-mâché assignment or to begin

working on the new ring-design worksheet. The teacher reminded the students that the

"Artist Reports" were due the following day. One student presented her findings on

Gauguin to the class and exhibited her Gauguin inspired papier-mâché sculptures because

she would be absent on the due date. The 3-D students were engaged in several different

activities, seated painting his or her papier-mâché, gathering supplies, or beginning the

preliminary ring-design worksheets.

As I walked about the classroom, I noticed that many of the students were

painting the papier-mâché sculptures. I asked several students what artist had inspired his

or her work. Each student told me the name of the artist who had influenced his or her

papier-mâché sculpture: Jasper Johns, Max Ernst, Matisse, and Pablo Picasso. The

students quietly talked with his or her neighbors. It was difficult to hear individual

conversations. There was a blow dryer on the counter that students would use to speed up

the paint drying process. The visual-arts teacher circulated among the students, quietly

giving each student individualized instruction as needed.

Visual-Arts Teacher 6 Document Examination

Ms. Chan provided me with copies of course documents (CD 21 to 23) that

required her students to reflect upon his or her artwork, identify artwork in his or her

portfolio, use the language of art (the elements of art and the principles of design) to

describe the artwork, to identify media, to describe problems and to represent significant

achievement in written form.

Visual-Arts Teacher 6 Portfolio Examination

Of the 5 portfolios examined, each (SW 4, 5, 6, 7, 8) contained evidence of

student's reflection and examples of writing with references to artwork exhibited in his or

her portfolios.

Interview with Visual-Arts Teacher 6

The purpose of the interview was to gain an understanding of Ms. Chan's

instructional strategies to enhance students' reflective-thinking upon the artwork

exhibited in the portfolio. I conducted the interview with Ms. Chan in the visual-arts

department storage room during her preparation period. Ms. Chan pointed out some of

the benefits and the importance of the portfolio:

> Is a lot of people might go in and might just BS their interview, but when it comes
> to art, you gotta show it, you know? You can say all you want, but when it comes
> down to the bottom line, you gotta show it. And I also think even if you're not
> going to go into art, presentation skills are really important in life, and there's a
> lot of different wants to do it, it might not be in portfolio, but knowing how to

present yourself and knowing how to present your ideas and how to talk about it is something that's going to make you successful.

Purpose of the Interview: Exploration of teacher's perspective of student portfolios
Time: 8:00-11:00 AM
Date: March 19, 2008
Place: Marina High School
Teacher: Lisa Chan (T6)
Number of years teaching visual arts: 14
Number of years implementing portfolios: 12
Type of portfolio: Traditional
                            AP Studio Art

Barbara (B): All right. Do I have permission to record the audio?

LC: Yeah, that's fine.

B: Great! I'm going to ask you some questions about portfolios. If you don't feel comfortable responding, that's find, but I don't think they're going to be that personal.

LC: Ok.

B: How many years have you been teaching art?

LC: At a high school level?

B: Well, you can tell me all your…

LC: Well, I'm starting my fourth year at the high school level… well, actually I also taught at a couple charter high schools, so, yeah. Probably about four complete years. Because I did teach at charter high schools. But I also did ten years at a community college.

B: Ok.

LC: I taught graphic design. That was in the art department.

B: Ok. And how many years have you been doing portfolios?

LC: Well, I've been doing portfolios here for two years, and when I was at the junior college level I did portfolios also, just because that's how you get jobs.

B: How would you describe the portfolios used in your classes?

LC: I kind of look at this as kind of selecting their best work out. I talked about, for example, usually when you show your portfolio you want to start out with a strong piece

and you want to end with a strong piece, because that's part of how you sell your artwork, and this would be like a showing portfolio, like they might show it for getting into art school, or into an art program, or getting a job. There might be an entry-level job where they can use their portfolio. I have one student, who already is, some of these pieces she doesn't have very many of them, the college wanted some examples so he sent them all.

B: Wow.

LC: So he doesn't have any of his pieces; hardly any of them are here. So I'm trying to make it a kind of functional portfolio.

B: How do the students select the work for their portfolio?

LC: Well, at the end of the first semester, I had them do an analysis of two pieces based on two different things, one was medium and one was about personal style and intent, and concept… I kind of have them look at concept, and also we talk about things like quality of execution and what makes a good portfolio piece.

B: How do the students reflect upon their work in the portfolio?

LC: Well, I had it in a written format, and then we discussed it afterwards. So I had a worksheet that kind of had the questions that would help them start reflecting on it.

B: How do you encourage the students to reflect upon their artwork?

LC: Well, I use the worksheet… I guess talking about it, too. I think the critiques also help, because even though that's not direct correlation to the portfolio, I think the critiques are really important, because I do a lot of types of critiques, somewhere they might make comments about every piece, some are written, some are oral. Also, sometimes I have them look at very specific things, and I like to have them look at ideas and concepts, because I think that's an important part of… that's what makes art kind of stand out sometimes, there's not… There might be a lot of pieces that have great execution, great quality, but if you have a great idea, that excites people. Well, I like to kind of have us talk about, what do we feel the pieces communicating? I also like the to look at what's done well in other people's work, and what needs an improvement, because part of my theory is, and I used to say this when I taught at the junior college level, is if you can't analyze other people's work, you're going to be a better artist the more you learn to analyze artwork. It's really important to go through that process of looking at other people's work and analyzing it, because then it helps bring your level of your work up.

B: Great. What are some of the benefits presented by the portfolio?

LC: Well, I guess I look at, from a practical standpoint, you know, everyone in the art classroom isn't interested in going into art, but basically one way that art, related fields to

art, is different, is a lot of people might go in and might just BS their interview, but when it comes to art, you gotta show it, you know? You can say all you want, but when it comes down to the bottom line, you gotta show it. And I also think even if you're not going to go into art, presentation skills are really important in life, and there's a lot of different wants to do it, it might not be in portfolio, but knowing how to present yourself and knowing how to present your ideas and how to talk about it is something that's going to make you successful. When I used to do the junior college, I used to actually have them, their final was they had to show me their portfolio like I was a job interview. So I haven't done that for high school, because I feel like that's a little intimidating for high school, but I used to make them come in, show me their portfolio, and I told them the reason why I did that was the very first time I showed my portfolio was at a job interview, and I thought it was pretty intimidating, so I figured they might as well practice on me, because it's safer, and then you get used to talking about your artwork. So, I don't know, maybe I'll try it with high school kids someday, but I haven't tried that yet with high school, because it seems not quite ready for it.

B: Who sees the portfolios?

LC: Well, I guess that's up to the students. I had a couple students who went to a portfolio day.

B: Ok.

LC: So I don't know what work they took for that. It wasn't a whole lot of students. They might be showing it, if they have an interest in art, it might be something they show at an art school, and they might even change, because like right now a lot of them tend to have things that are from the class, but I was just recently talking to them and they probably want to have a little more variety of all their art that they've done, and what pieces… because not every single piece that you do in the class is a great piece.

B: No. What have been some of the challenges presented by the portfolios?

LC: Some of the challenges might be if somebody feels like they don't have any good pieces, and it might feel like a negative experience. I had one student who made a comment like that, when we were just putting our portfolios together and doing a little bit of analyses, she goes, "oh, I don't have any good pieces," so I found what I had to do was go over to her and find what she had that was strong. She's a good designer, and like, "remember you did this, oh don't forget that one that's hanging up on the wall there," talk her through it, and I kind of feel like that kind of helped her feel better about it. But I think at first she felt like, "oh, I don't have anything." So I think they could kind of, it can feel to them like it's judgmental, like someone's making a judgment on them. And that's part of the reason I haven't done interviews with high school kids. Maybe just because still a little too vulnerable, or they feel, you know, don't have that confidence yet, or that commitment, of what they want to do in life enough to do that.

B: Is there anything you wanted to tell me about portfolios that I didn't ask?

LC: I can't really think of anything. I know in our art certificate program, part of what that will be is the portfolio would be part of that. That would be a requirement for the visual art. Like for the other art areas they might have a requirement of a resume of experience or they might do a video of an audition type number. They're both building a body of work, but I guess we're trying to use that, kind of trying to increase the portfolio here by looking through the art certificate program.

B: That sounds very interesting. Well, that's the end of my interview questions. If you think of anything about portfolios that you want to tell me, that you, while you're driving home, you're look, oh, I have to remember…

LC: To me they seem like a pretty functional thing, because when I was freelancing, you go show your portfolio, and after a while it gets easier, but the first time you show your portfolio it's pretty intimidating, and that's probably what some of those students experience when they went to the portfolio day. Just the reminder of growth is really important. And that's something I'd like to add to talking about portfolios that I hadn't talked about, is that when we're talking about the APs it kind of reminded me of that, is the importance of seeing your own growth, and I think that'd be a perfect thing to emphasize with high school students. A little less threatening. That the purpose of this portfolio's a little different, it's an opportunity for you to see your own growth, so actually I think I'll even talk about that! I like that.

B: Me too. You're on to something! Well, thanks.

Appendix S

Ron Parker (T7)

Appendix S

Visual-Arts Teacher 7 Description

Ron Parker (T7) has been teaching visual arts and implementing portfolios for the last ten years at Hillcrest High School, a rural public high school. I observed Mr. Parker's Career Choices and Advanced Art classes. I examined portfolios developed by the Advanced Art, Career Choices, and Advanced Placement Studio Art students.

Classroom Description for Visual-Arts Teacher 7

The Hillcrest High School visual-arts studio is approximately 4,000 square feet; recently a former auto shop and a former metal shop were converted into adjoining 2-D and 3-D art studios. Former office space currently is used for storing art supplies. Large speakers filled the art studios with rock music. The art teacher estimated that there were 1,260 masks mounted on the studio walls that represent each student who has taken his class (140 masks per year for 9 years).

In the center of the 2-D art studio, several long narrow tables formed a "U" and faced the white board at the front of the studio. The east side of the studio had two old butcher-block tables with lockers underneath for storage. The entire length of the east wall that separated the 2-D and 3-D art studios served as an easel for large student work. High on the east wall, several large canvas paintings were mounted. The south side of the classroom was set up as a living-room area; furnished with two sofas, two chairs, a coffee table, a refrigerator, a small putting green, and an area for the golf team to practice driving golf balls. The west side of the 2-D art studio had several cabinets for storage and a door leading outside. The north wall of the studio had one white board, one sink, one

computer, one slide projector, and one projection screen. There were 2-D and 3-D pieces of student art mounted on every wall of the studio.

Adjoining the 2-D studio, the former auto shop is a 3-D art studio dedicated to ceramics. Six potters wheels neatly aligned beside the garage door; thee sinks were located on the north wall near the door to outside. In the back of the studio were one kiln, one wedging table, and a few small lockers. The old offices were filled with clay and glazes. There were many 3-D pieces of student art mounted on each of the walls, and several large sculptures sat on top of the tall storage cabinets.

Visual-Arts Teacher 7 Classroom Activities

Mr. Parker sat down on the sofa and warned me that a lot of kids would be coming in the room for brunch as he ate his banana. The 2-D art studio quickly was filled with 25 to 30 students eating and visiting. Two girls and a boy student sat joined us in the 2-D art studio "living room." The teacher introduced me to the students and to the drama teacher visiting from next door. As I sat in the sofa, a few feet behind a member of golf team practiced his swing driving golf balls into the net a few feet away. It was difficult for me to sit and listen to the swing of the club and crack of the ball so close to me in the classroom.

The third period group of students entered the 2-D art studio, the lights were dimmed and a slide was projected on the screen. The students were asked to write down his or her observations of the slide. The 2-D class I observed had 23 (15 girls, 8 boys) students; four of the students were advanced working on different projects than the freshman. The freshman 2-D students were seated in a "U" formation and looked at a slide projected as a warm-up activity. Teacher asked the students to " Try to get as much

information as you can as far as shape, composition." Students were talking. Teacher tells

students that he has the slide mounted backwards. The lights were dim, yet from where I

sat in the 2-D art studio "living room," I noticed that many of the freshman 2-D students

were engaged in small-group conversations, not looking at the slide, and not writing.

Mr. Parker might have been taking roll silently, or giving the freshman students time to

think and write, or standing quietly until the students were quite so he may speak without

talking over them. The students were quite content talking with each other. One student

male student was on the computer; a small group of advanced students were seated on the

side of the classroom painting in the dim light.

The fourth period 3-D class I observed in the ceramics studio had 25 students (18

boys, 7 girls). The freshman students were seated at tables, each student working on a tiki

mask. A few students got up to wedge the clay or to get supplies. Most of the students

were seated, working, and talking. The 3-D students were engaged in his or her work,

talking, and listening to loud rock music. It was difficult to hear individual conversations

among students because of the loud music playing. Mr. Parker had a male visitor who

had 2 elementary-school-age children with him. The ceramic students were engaged fully

in working on his or her project as the teacher talked to the visitor.

Visual-Arts Teacher 7 Document Examination

Mr. Parker provided me with four course documents his students received. In

addition, Mr. Parker presented me with plastic container filled with 10 "Visual Journals,"

a new project that employed discarded books from the library as the foundation to

develop new ideas by gessoing, drawing, writing, or collaging over the existing pages.

Each book was unique, colorful, hand painted, and handwritten. Mr. Parker's Visual

Journal project provided advanced art students with the opportunity to develop his or her personal interests, to demonstrate his or her self-reflections skills, to utilize his or her writing skills, and to enhance his or her creativity by repurposing a discarded book. The Visual Journals that I examined contained word-processed self-reflections that encouraged the students to reflect upon the entire project. The images and ideas generated in the Visual Journal helped one student to understand his past and may lead to the development of other artwork. The basic language of art, the use the elements of art and the principles of design, to express student's observations and opinions began to emerge in the Visual Journal reflective writings. Mr. Parkers Visual Journal project provided his advanced art students with an opportunity to utilize his or her creative skills while developing his or her art-content knowledge (elements of art or the principles of design), enhancing his or her self-reflections skills, encouraging critical thinking, and demonstrating his or her writing skills to express themselves.

Visual-Arts Teacher 7 Portfolio Examination

Mr. Parker suggested that I would be more comfortable sitting in the 2-D art studio "living-room area" while looking at the portfolios of student work, the copies of the slides submitted last school year to the College Board for AP Studio Art consideration, and viewing the portfolio video on the TV and VCR. Mr. Parker also created a scrapbook that included an article and photos from the local paper about the skateboard painting project and a collection of art show invitations made by each of his advanced students. The Video Portfolio the teacher created and gave to each student at the end of the school year included a few seconds of every student enrolled in each visual-arts class either working on his or her project or working on one of the group art

projects on campus at Hillcrest High School set to rock music. Mr. Parker commented

that the tape very important to some of his students, if his or her house were burning

down, the Video Portfolio would be the one item the student would save. As I sat and

looked through the portfolios, I was able to use my digital camera to photograph the

word-processed documents in the portfolios. The portfolio project allowed students to

create 2-D and 3-D art, to select works to include in his or her portfolio, and to reflect

upon his or her artwork exhibited in his or her portfolio. Of the three portfolios that

contained word-processed documents, there was no evidence of the student's ability to

critique a selected artwork.

Interview with Visual-Arts Teacher 7

The focus of the interview was to gain an understanding of Mr. Parker's

instructional strategies to encourage students' reflective-thinking upon the artwork

exhibited in the portfolio. I met Mr. Parker in the 2-D art studio at 8:30 AM during his

preparation period. I suggested that first we conduct the interview, then I would examine

the portfolios and observe the students working in classroom. Mr. Parker explained that

the required freshman "Career Pathway" class rotates students every six weeks through

the Business, Home Economics, Agriculture, Health, and Art Departments. The six-week

cycle of art included a three-week introduction to 2-D and a 3-week introduction 3-D art.

Advanced students were mixed into each of the classes and worked on different projects

independently. Mr. Parker explained the evolution of portfolios at his school site, "I

started using portfolios because it was one of the requirements of our career pathways

program."

> Every year we do a class portfolio or a year portfolio, and we've done it in video
> form, we've done it in scrapbook or photo album form, but it's an overview of

anything new or innovative that we did that year, that was more encompassing of group-based projects – we do a lot of group projects here – and with the video, every kid that leaves gets a copy of the video, so that's kind of a video of the year as well.

Campus beautification, there's a lot of group projects that they are very much a part of, and then they're going to have something to show from it too, and that's where the video portfolio is a really unique thing for a lot of students here.

Purpose of the Interview: Exploration of teacher's perspective of student portfolios
Time: 8:30 –11:30 AM
Date: February 21, 2008
Place: Hillcrest High School
Teacher: Ron Parker (T7)
Number of years teaching visual arts: 10
Number of years implementing portfolios: 10
Type of portfolio: Traditional
                        Digital
                        AP Studio Art

Barbara: Ok, Ron, thanks for being here. You're my first response.

RP: No problem.

B: So how many years have you been teaching art?

RP: Ten years.

B: Ten years, ok. Why did you start using portfolios?

RP: I started using portfolios because it was one of the requirements of our career pathways program. We set up a thing where it's kind of like a mini academy, where students come in, they take a quarter, freshman year they take a quarter of art and communication, home ec, and woodshop, and then after that they major in one of them. And one of the requirements is a portfolio at the end of some sort, where they develop a resume, and they develop any kind of portfolio that they can take out and use for a job, so that was why I developed the portfolios in the first place. So it was only something that we did, and only something that we do with our top end kids, the kids that are seniors, at the top. And from that it kind of morphed into everyone at the top now is an AP student, so they did an AP portfolio. So that AP has sort of taken the place of what used to be a business one, because the structure and requirements are so much more rigid and intense, that to fill that requirement we got everything else beat, and that's kind of where we're at now, the only portfolio we do is an AP one.

B: Ok… My question is how you use the portfolios in your class, but you pretty much described it, with the AP, so…

RP: I take that back, I'll add another one too. We do other portfolios that are… that's the individual portfolio, and then every year we do a class portfolio or a year portfolio, and we've done it in video form, we've done it in scrapbook or photo album form, but it's an overview of anything new or innovative that we did that year, that was more encompassing of group-based projects – we do a lot of group projects here – and with the video, every kid that leaves gets a copy of the video, so that's kind of a video of the year as well.

B: Great. How do students select the artwork in their portfolio?

RP: The AP process is one where it kind of evolves organically. As they're building pieces of they're going to see… That one evolves organically as far as what their breadth is going to be. They start their breadth in the junior year, and that's kind of how the curriculum is developed. People get to pick it out and add it as their senior year goes on. In developing the depth part, I recently started using a visual journal process that develops the depth, so that they can really focus in on an area of concentration that they're going to develop, which is very difficult, and the process has to start, I'm finding, a lot earlier than when I originally started doing it.

B: So they start off as a junior, and they kind of have the first two years, then they're a junior or a senior…

RP: Yeah, the art… I found that doing it in Art 1, I tried, and I found that so many kids are taking Art 1 because it's a requirement to graduate or a requirement to get into college or they need a filler between math and English, that you really don't get anything good out of them. The kids that decide to come in for a second year, that's when they've really made a commitment, and you start, "we're going to really get you from here," to the finished project, after you've made it past your first year.

B: Great. How do students reflect upon their artwork?

RP: In the original portfolios that I started with, they had to write an artist's statement, they had to write a vitae and put in a resume. Now with the AP portfolio, that's a requirement of writing about your series of descriptive paragraphs that go in there, that starts getting crafted from the beginning with their idea development, so there's a lot of writing that goes into their visual journals, leading up to the concise statement for their depth portion of their portfolio.

B: Ok. You kind of told me a little bit about this. How do you encourage your students to reflect upon their artwork?

RP: We do the visual journal – I try to start the visual journal project fall semester. Every Wednesday is dedicated to that visual journal, and we'll do a variety of activities that are you know brainstorming or loosening up of your creativity, that automatic writing kind of things, guided visualization exercises, and from that it's in a real loose form, they can

later go back and read through it and extricate things that they want to have that are standing out for them and are later going to be formed into a more concise area of exploration.

B: Is it a kind of notes and sketches part?

RP: It is… notes and sketches happen throughout, but on the once a week thing is more of a kind of an exercise where you take out the thinking portion of what they're doing and it gets kind of more an automatic write, or you lay things out in front of them and say, "pick one of them, now you've got to make five marks on the page, now put that down, now you've got to draw three triangles, put that down, now I want you to completely black out an area, now I want you to write about something you see in the room, real fast," all these things loosening them up, and then go into more of writing about how they're feeling about drawing or painting or something to that nature. That's the most recent thing that we're doing write now.

B: Wow, ok. What are some of the benefits presented by the portfolio?

RP: Well, the number one benefit, is if you're going to go on and pursue art as a career, period, having a portfolio that's at least going to be a basic framework and then added and subtracted from is very important. You're going to leave here with something that you already know is the structure… I think that's probably the biggest benefit if you're going into the art career. If not, just the feeling of satisfaction of seeing a whole body of work put together at one point is pretty rewarding for most of the students.

B: Who sees the portfolios?

RP: We… Good question. Mostly their parents. The portfolio that we started… they'll see the portfolio, not in the book form, but all of my AP students at the end of the year have a one week solo show in the gallery, and all their work will be up, so it's essentially a portfolio for their one week show. So they have the gallery opening, and they provide all the food for it, and send out announcement cards and all that. So essentially people will see their portfolio in its true form, all their displayed artwork.

B: Great. And is that on campus?

RP: It's on campus.

B: And do you invite the parents?

RP: They invite anybody they want. We send out as many cards as they want.

B: Great!

RP: And a lot of kids sell their art at that show.

B: Wow! What are some of the challenges presented by the portfolio?

RP: Just how daunting of a task it is, for the kids to look at it and go "this is a lot of work," especially the AP portfolio. And at the end the stress of oh my god I need three more pieces, and I've got to take a slide of it, and develop, and nobody develops slides overnight, and that aspect of it is definitely the most challenging.

B: Is there anything else you'd like to tell me about portfolios that I haven't asked?

RP: I don't think so. That's about it. I think one of the things I like about the way we're doing our portfolios, aside from the AP ones, is the whole group portfolio. Because we have a lot of kids here who individually are not going to be able to throw down 24 pieces into a portfolio, but they can contribute to the mosaic mural that we did, or the water project. Campus beautification, there's a lot of group projects that they are very much a part of, and then they're going to have something to show from it too, and that's where the video portfolio is a really unique thing for a lot of students here.

B: Yeah, I think that's great. That's actually all my questions, and so do you have some portfolios I could look at?

RP: Yeah, I got a variety of them.