2006-06-09

Calligraphy As A Developmental Tool For Chinese Painting

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CALLIGRAPHY AS A DEVELOPMENTAL TOOL FOR CHINESE PAINTING

by

Jo-Lan Shu

A project submitted to the faculty of

Brigham Young University

In partial fulfillment of the requirements for the degree of

Master of Science

Department of Instructional Psychology and Technology

Brigham Young University

April 2006
BRIGHAM YOUNG UNIVERSITY

GRADUATE COMMITTEE APPROVAL

Of a selected project submitted by

Jo-Lan Shu

This selected project has been read by each member of the following graduate committee and by majority vote has been found to be satisfactory.

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As chair of the candidate’s graduate committee, I have read the selected project of Jo-Lan Shu in its final form and have found that (1) its format, citations and bibliographical style are consistent and acceptable and fulfill university and department style requirements; (2) its illustrative materials including figures, tables, and charts are in place; and (3) the final manuscript is satisfactory to the graduate committee and is ready for submission to the university library.

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ABSTRACT

CALLIGRAPHY AS A DEVELOPMENTAL TOOL FOR CHINESE PAINTING

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Master of Science

This report discusses the design, development, and evaluation of a Chinese painting instructional project. The project discussed in this report introduces the novel idea of developing specific calligraphy skills in order to improve Chinese painting skills within a restricted time period (1-3 hours). The results show differences that are statistically significant between the pre and post test paintings created by 23 subjects from both the high school and the university level. The results of the evaluations can be found in the results section of this report.

This report consists of a literature review, a project description, a description of the methodology used in the design project, evaluation results, and the full Chinese bamboo painting instructional material named Founding Chinese Bamboo Painting in Calligraphy: The Fourfold Approach (provided in Appendix A).
ACKNOWLEDGEMENTS

I am grateful to the people who contributed so much in order to make this project possible. Xu Shu-Xiu 徐述修 is a dear friend of my father and also a famous Chinese painting master in Taiwan. He showed me his studio in Taiwan and encouraged me to videotape there for my project. In short, he did everything within his power to help people to appreciate the beauty of Chinese painting. Dr. J. Olin Campbell has been helping me ever since I first formulated my project. I am very appreciative of his enthusiasm, his professional opinions, and his encouragement. I am also grateful to Dr. Paul F. Merrill and my other committee members, Dr. David D. Williams, and Dr. Dana Scott Bourgerie for their help and their time. I give special thanks to Wesley Austen and Angela Bawden. Wesley was a participant in my formative evaluation group. With his excellent writing skills and his philosophical perspective, he has given me many insights and has helped me to polish my project. Angela was nice enough to come back to Provo to help me with the small group evaluation for my project. She has given me many useful suggestions in accordance with her professional experiences in editing and her background in English. I extend a special thanks to Wendy Butler and her students for participating in the workshop that was conducted for the trial group evaluation. Last but not least, I would like to express a sincere appreciation to my family for their support and their love.
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Purpose of the Project

This instructional material project, *Founding Chinese Bamboo Painting in Calligraphy: the Fourfold Approach*, is designed to teach English speaking students and teachers to do Chinese bamboo painting using calligraphy as a developmental tool. A secondary goal is to encourage those who are unfamiliar with Chinese culture to come to appreciate it. The project contains instructional material with practice exercises and CD-ROM demos. The primary goal in developing this instructional material was to provide a simple guide that contained important features that other instructional materials on the topic are lacking. After a review of the literature, it was found that the important features that other instructional materials lack are as follows: (a) a complementary combination of Chinese calligraphy and Chinese painting, (b) a complementary balance between cultural information and instruction on how to do bamboo painting, (c) practice exercises, (d) a printed, detailed walk-through for painting bamboo, and (e) walk-through demonstrations on CD.

In this paper, the idea of using Chinese calligraphy is introduced as an approach to teaching bamboo painting. Also, a unique balance is established between the learning of cultural background and the learning of practical painting skills. It will be shown that an essential element to the learning of Chinese bamboo painting is the precursory learning of Chinese calligraphy. The technique of teaching calligraphy strokes prior to teaching bamboo painting has been adopted in order to facilitate the learning process for novices who do not have any experience with brush stroke techniques. Also, the approach of showing each step of a bamboo painting separately has been adopted in order to highlight commonly made errors.

Teachers of Chinese painting are rare. How-to books are the next best source from which to learn Chinese painting and calligraphy, but unfortunately, these books do a very poor job of teaching one how to paint effectively. For the purpose of meeting the specific needs mentioned above, I have developed a Chinese bamboo painting rubric and a set of instructional materials which consists of a nine-chapter, paper-based text and a CD-ROM with demonstration video clips. These instructional materials are based upon the establishment of a parallel between the four main strokes of Chinese calligraphy and the corresponding four main structures of bamboo painting. The parallels between these four corresponding strokes and structures are as follows:
1. *Ce* (the dot) corresponds to the beginning stroke of either the bamboo stalk or leaf.
2. *Le* (the horizontal line) corresponds to the bamboo joint or branch.
3. *Zhuo* (a slanted line that starts from a northeast orientation and ends in a southwest orientation) corresponds to the outline of the bamboo leaf.
4. *Nu* (a vertical line) corresponds to the outline of the bamboo stalk. (For the visual representations of these strokes, see appendix A, chapter 3).

The connection between Chinese calligraphy writing and bamboo painting is a specific example of a more general principle: a specific art form from a particular culture can be adequately learned and understood only after one has first gained a sufficient understanding of the cultural context in which that art form originated. Briessen (1962) has noted the following with regard to the importance of maintaining a proper balance between providing information on the culture that underlies Chinese bamboo painting, and instruction on how to do bamboo painting: (Briessen, 1962)

A brush stroke resembles nothing so much as a sword stroke, the release of an arrow, the judo grip, the sumo throw, the karate stroke. They all have one thing in common: they require an extraordinary discipline and concentration of mind on the stroke, the throw, the blow, the grip, with exact co-ordination of mind and body achieved through breathing. (p. 39)

Simply knowing the techniques of bamboo painting is not sufficient to master the art of bamboo painting. In order to attain a level of artistic expression that goes beyond the mere arrangement of brush strokes, it is important to first familiarize oneself with the culture behind the art form. “…the study of other countries and cultures was a frequent theme. The theme required contextualizing with a learning purpose that engaged students in substantive understanding about another culture and society” (Stewart & Walker, 2005, p. 115). It is essential in establishing an authentic method of Chinese painting that there exist a bridge between background knowledge of the culture from which the art originated, and knowledge of the practical skills of the art itself. Due to the scope of this project, the importance of general cultural background knowledge will not be discussed extensively.

In this paper it will be argued that the best specific cultural context in which to learn Chinese bamboo painting is through a precursory learning of the art of Chinese
calligraphy. Specifically, it will be argued that the best preparation for learning the four main structures of Chinese bamboo painting is to first learn the four main strokes that are taught in Chinese calligraphy. In light of this thesis, the text of the instructional material consists of the following elements: a) Chinese calligraphy and painting instructions, b) a detailed walk-through for painting bamboo, c) practice exercises, and d) a balance between cultural information and instruction.

Current Interest

Art education is an important aspect of every school’s curriculum. Wooff indicates that art plays a valuable role in promoting a particular ambiance, “art is seen to engender an atmosphere of learning and purpose and is an inspiration to staff and pupils alike.” (Wooff, 1976, p. 7-8) Among all the materials and forms of art, initially, drawing was the main art activity. It was looked upon as a skill to be developed by copying under instruction and practiced by routine. As Dick Field (1970) pointed out,

The intention of the exercises set for children was at bottom to develop a skill. Courses of training were strictly practical, at first involving freehand drawing of straight lines of different lengths [...] later including the making of freehand copies, the notion being that the child in copying outlines of beautiful shapes would imbibe the principles of beauty. (p. 6)

Learning through art can present the prospect of adventure in ideas and actions to which children can give a degree of enthusiasm and energy equal to that which they give to other subjects. (Wooff, 1976, p. 12) Woof also explains his idea that in drawing a natural form such as a flower, one may provide a valuable aesthetic experience for a child.

Moreover, schools around the world are teaching the Chinese language, Chinese culture, and Chinese calligraphy. Most schools, however, do not offer lessons on Chinese painting. Based on the data that I collected in a needs analysis in 2004, I found that subjects who are interested in Chinese language and culture also tend to be interested in learning Chinese painting. Not only do they want to read about it, they also want to learn to do it themselves.
Literature Review

The purpose of the instructional material is to provide a single book that contains all of the important features that other instructional materials on the topic are lacking. Although Chinese bamboo painting has more than 4,000 years of history, and there are many materials and resources on how to paint bamboo, they are all deficient in important respects.

Many excellent books have been written on the subject of Chinese painting. Of the Chinese books that have been written on the topic, many have been translated into different languages. But the teaching methods used in these translated books are the same as the methods that are used to teach Chinese students who not only have a knowledge of the Chinese writing system of calligraphy, but also have a background in Chinese painting.

One of the most important works on the technique of painting is *The Mustard-seed Garden* (芥子園畫傳). This was published between the years 1679 and 1701 and has become famous in the West because of its beautifully colored woodcuts. It was translated into French by Professor R. Petrucci; into German by Victoria Contag; and into English by Mai-mai Sze. The title of the English translation is *The Tao of Painting* (Briessen, 1962, p. 33). *The Mustard-seed Garden* is a compilation of all of the elements and techniques of Chinese painting that were known at the time of its making. The main shortcoming of this book is that the materials that it contains are difficult to utilize due to its old and deteriorated painting samples and its antiquated learn-by-repetition methodology.

Another important reference is the *Book of the Bamboo*. This book was written by Dai Kai-Zi (戴凱子) sometime between 265 and 420 A.D. Being over 1,500 years old, it contains many examples of classic works, including prints from paintings by old masters, in addition to several critical treatises on these paintings. Cahill wrote in the preface of *Chinese Painting Techniques* that “In place of down-to-earth advice for beginners, it serves up an endless fare of aphoristic principles culled from ancient writings.” (Cahill, 1968, p. 9). This book uses the word “write” as opposed to the word “paint” when referring to the composition of bamboo paintings, which is evidence of the close connection between Chinese calligraphy and painting. Unfortunately, it does not introduce any calligraphy strokes, due to the fact that its target audience is Chinese
readers. The author assumes that the reader already knows how to do Chinese calligraphy. A third important book of Chinese bamboo painting is a book by Hsieh Ho (謝赫). Hsieh Ho was a philosopher art critic who lived in the 5th century A.D. He authored a book known as the *Six Canons* (謝赫六法) of Chinese painting (Cameron, 1968, p. 19). These canons were to serve as a guide, not only for students of Chinese painting, but also for critical admirers of Chinese painting. The main shortcoming of this book is that it lacks demonstrations and examples. It merely expounds the philosophy and the principles behind bamboo painting without providing any hands-on experience.

Besides ancient books and records, several current books as well as online resources were also reviewed. Every artist and author has his or her own unique method of teaching Chinese painting. Yue thinks that the learning process should “begin with the basic techniques: wrist movement and elbow movement, press and lift technique, two-tone and multi-color loading of the brush....” (Yue, 2004, p. 8). The first two of Yue’s introductory painting techniques are utilized in the instructional material I created. Illustrations of proper brush-holding are shown, and practice space is provided for students to get familiar with the relationship that exists between brush pressure and ink shade. Due to time limitations, however, the topic of color is not introduced in the workshop.

Another book, *Learning Chinese Painting—Techniques of Chinese Painting (1) 學國畫—中國畫技法普及教材(一)*, presents the four ways of learning Chinese painting. These four ways are: (a) imitation, (b) sketch, (c) criticism, and (d) composition. (Xu Zhan, 2000, p. 4–5). In my instructional material, all of the methods from this book are introduced except the sketch, due to time and resource limitations.

*Assessment Methodology Research*

In creating any instructional material, the assessment of that material is a vital element that must be taken into account. There are two common methods that are used to compare or reference a score. They are Norm-referencing and Criterion-referencing. Norm-referencing makes comparisons among students. Criterion-referencing scores a performance or test against a predetermined criterion. In this project the criterion-referencing technique is used. The major problem with norm-
Referencing tests is that they provide little information relative to diagnosis and prescription; they only provide information about the standing of a student in reference to his or her peers. On the other hand, criterion-referencing compares students’ scores, based on a performance or test, against a predetermined criterion, or a whole report of behaviors, which are referenced to the content and skills of a discipline. Students are compared to the standard of the criterion, which measures what kinds of things a student with a particular score can accomplish.

Criterion-referencing is sometimes called an absolute scoring system, because it compares each student’s performance to the same performance standard. The advantage of a criterion-referencing test is its ability to diagnose and prescribe. Historically, criterion-referenced scoring schemes have been widely used for classroom art assessments; the portfolio, with emphasis on standards for individual achievement, is an example. Educators often refer to criterion-referencing as objective-referencing, by which they mean that the criterion for which assessment tasks are created is related to course performance objectives. Criterion-referencing is the generally preferred score-referencing scheme (Beattie, 1997, p. 108).

**Criteria**

Criteria are important, foremost, for the purpose of clarity. Especially when performance tasks are highly engaging, it is easy to forget (or ignore) the purpose of the task. When instructors carefully consider the criteria, they clarify what is really important and what is valued in student work and behavior. Assessment is often thought of as a means to help students learn what they are intended to learn, but it is actually the awareness of the criteria, not engagement in the task itself, that promotes such learning (Stewart & Walker, 2005, p. 95). Not only should students be made aware of criteria for successful completion of a task, they ought to be involved whenever possible in the development of criteria.

Gentle (1993) emphasizes the definition of a good criterion. “A series of written comments and observations, derived from a teacher’s work with children are informed by general aims, can be set down as markers or criteria with which to make assessments. Such criteria are necessary for some important reasons and every teacher should arrive at, or interpret personally, criteria for what he or she teaches” (Gentle, 1993). He also indicates the four main characteristics of good criteria:
1. Criteria establish a way of looking at the work of a class or group or pupils that has the same basis for all. Criteria do not depend largely on the attractiveness of the work to that particular teacher. Criteria can cover a range of qualities and competences, some of which may note skills of accuracy while others note different qualities such as awareness of surfaces or strength of ideas.

2. Having criteria from which to assess avoids making judgments through comparisons between children’s work.

3. Having criteria enables every child to achieve at some level and see what is required for him or her to do so.

4. Criteria can focus understanding and observation so that everyone’s intelligence about paint and painting is increased. (p. 113)

The process for developing your own criteria is straightforward. By following the steps suggested by Herman, Aschbacher and Winters (1992), an instructor can develop his or her own criteria:

1. Investigate how the assessed discipline defines quality performance.
2. Gather sample rubrics for assessing writing, speech, the arts, and so on as models to adapt for your purposes.
3. Gather samples of students’ and experts’ work that demonstrate the range of performance from ineffective to very effective.
4. Discuss with others the characteristics of these models that distinguish the effective ones from the ineffective ones.
5. Write descriptors for the important characteristics.
6. Gather another sample of students’ work.
7. Try out criteria to see if they help you make accurate judgments about students.
8. Try it again until the rubric score captures the “quality” of the work. (p. 75)

The Center for Research on Evaluation, Standards, and Student Testing (CRESST), has developed criteria that represent a touchstone throughout the assessment development process (Linn, Baker, & Dunbar, 1991). These criteria include:
1. Consequences. This criterion requires that we plan from the outside to assess the actual consequences of the assessment. Make sure the criteria have positive consequences.

2. Fairness. The assessment should consider fairly the cultural background of those students taking the test.

3. Transfer and Generalization. The assessment results support accurate generalizations about student capability.


5. Content Quality. The tasks selected to measure a given content domain should themselves be worthy of the time and efforts of students and raters.

6. Content Coverage. It requires that assessment to be aligned with the curriculum and, over a set of assessments, represent the full curriculum.

7. Meaningfulness. Ensure that students engage in meaningful problems that result in worthwhile educational experiences and higher levels of motivation.

8. Cost and Efficiency. To be effective tools, assessments must be cost effective.

Even if the criteria are well defined, common errors associated with rating scales may still occur. Beattie (1997) listed the common tendencies among them:

1. Rate in the center and avoid either extreme (central tendency error).

2. Rate students’ work the same in all categories based on a first or generalized high or low impression of the student (halo or sudden death error.)

3. Give the subject the benefit of the doubt if not sure how to rate or a tendency to rate all individuals too low on all characteristics (leniency or severity error).

4. Judge an underlying principles (a construct such as creativity or writing ability), rather than the characteristic or behavior characteristics.

5. Judge too quickly (jumping-the-gun error).

6. Judge a student against the previous student (comparison error). (p. 67)

Angelo and Cross (1993) also provide basics on classroom assessment
strategies, primarily for university settings, indicating the steps of implementing formative assessments:

1. Identify teaching objective.
2. Write a single, assessable question.
3. Select an informal feedback strategy.
4. Decide how to introduce the strategy.
5. Apply the strategy.
6. Analyze and interpret the feedback.
7. Respond to results.

**Conclusions Regarding the Literature**

Based upon the literature that was reviewed, there does not appear to be any instructional material on Chinese bamboo painting that provides all of the following important features:

1. A combination of both Chinese calligraphy and Chinese painting.
2. A printed, detailed walk-through of each step that is required for painting the different parts of bamboo stalks.
3. Practice spaces provided specifically so that students can practice the techniques that they learn as they progress through the book.
4. CD-ROM walk-through demonstrations of bamboo painting exhibited by the foremost professionals in the field of Chinese painting.
5. A proper balance between information on the culture that underlies Chinese bamboo painting and instruction on how to do bamboo painting and an assessment methodology that enables one to objectively assess whether ones skills have improved with the taking of the course.

All of these features are needed to comprehensively teach the novice how to properly do Chinese bamboo painting.

In the instructional material that I developed, one of my primary goals was to provide instruction with regard to all of those features of bamboo painting that other sources, taken as a whole, are lacking. An introduction to calligraphy using the “writing” method is provided, as mentioned by Dai Kai-Zi (戴凱子) in his *Book of the Bamboo*. The instructional material includes instructions on stroke order, in addition to fading traceable models for hands-on practice.
In the instructional material, numerous methods and techniques from compilations of bamboo painting masters have been adopted. Of note, is the method of teaching calligraphy with the goal of familiarizing students with the techniques that are used to make proper brush strokes. I have also adopted the approach of showing each step of a bamboo painting separately in order to highlight commonly made errors.

The material combines both old and new methods of learning Chinese painting. I introduce the use of Chinese calligraphy as an approach to teach ink painting, and establish a balance between learning physical skills as well as the cultural background needed to properly understand and paint Chinese bamboo. CD-ROM walk-through demonstrations as well as practice spaces are provided so that readers can practice the techniques as they progress through the instructional material. This workshop material has been tested and proven successful in the formative evaluation and trial groups.

Method

*Art Assessment Theory*

The word “assess” comes from the French “assidere,” which means “to sit beside.” ASCD (Association for Supervision and Curriculum Development) President, Stephanie Pace Marshall (as cited in Herman et al., 1992), indicates that “by clarifying the critical conceptual and technical aspects of using alternative assessments, the authors have reaffirmed the fundamental role of assessment, which is to provide authentic and meaningful feedback for improving student learning, instructional practice, and educational options.” In this instance "assessment" is taken to mean the making of judgments using known criteria, in order to determine whether particular qualities are present within a particular curriculum, and whether certain skills or abilities have been acquired through the implementation of that curriculum. The goal of assessment is to determine what changes need to be made to a curriculum based upon an analysis of the effectiveness of the curriculum.

The establishment of the criteria upon which the assessment of any particular work of art is to be made is always based, at least in part, upon the context in which that particular work was produced. The time and location during and in which the artist lived, as well as the values and attitudes that the artist had while creating his or her works, should all have a bearing on how we form judgments about the works of art of
that particular artist. This view is shared by a number of art educators and is a cornerstone of the Assessment of Performance Unit (APU *Aesthetic Development*, 1983) and of work by Eisner (1972).

But when the criteria that one uses in the assessment of art is based upon the cultural values inherent in the culture from which the work of art emerged, it is very common for art assessment to be criticized for its overly subjective nature. Some teachers would say that no worthwhile evaluations of art can be made at all, and that anyone who thinks that he or she is able to do so is fooling him or herself. The argument grows from the stance that however carefully one judges something artistic, because that judgment is personal and therefore subjective, it does not have any great claim to objective truth. Barnes says that “assessment of major works of art by painters such as Van Gogh or Rembrandt would prove just as difficult a task as the assessment of children’s work. The criteria for assessing can lead to nonsense” (Barnes, 1987, p. 160).

Students’ performance in learning to paint Chinese bamboo cannot be “machine scored,” but must be judged by one or more persons guided by well-defined criteria. This approach is similar to that used for judging performances in gymnastics or diving competitions. The scoring of all instruction that falls under the category of “the arts” must have standards established for grading to help maintain the balance between subjectivity and objectivity. The vehicle used to guide human judgment in such situations is a rubric.

"Rubric" is a term which has its origins in the Latin word *rubrica terra*, a word which originally referred to the use of red earth to mark or signify something of importance. A rubric “consists of a fixed scale and a list of characteristics describing performance for each of the points on the scale. Rubrics also promote learning by offering clear performance targets to students for agreed-upon standards” (Marzano & Pickering, 1993, p. 29). But all assessment procedures have limitations, even those associated with measurement. In fact, some teachers’ assessment is associated solely with measurement, though as David Best (1983) has commented,

The most important aspects of educational progress, such as the ability to understand people, and moral and emotional development, cannot be measured, although they certainly can be assessed. (p. 161)
As David Best says, “It is not that the arts are like the sciences in yielding definitive conclusions, but, on the contrary, that the sciences are like the arts in their ultimate answerability to new and different interpretation of objective features” (Best, 1985, p. 161). The assessment of success in art often proves difficult because art frequently leads an individual from one area of evaluation to another, so that it is difficult to focus on any one area of evaluation. The criterion one uses focuses on specific features of the work of art, which is itself arbitrarily chosen according to the subjective concerns of the judge. And in choosing to focus on certain features of art to the exclusion of others, one inevitably finds it difficult to be consistent in artistic judgment. For example, a teacher may believe that art is essentially concerned with qualities such as beauty, harmony, and order, or with the establishment of discernment and good taste. Such values do not easily lend themselves to being categorized hierarchically, and thus the use of such values in evaluating art often leads to an ambiguity. A teacher may also feel that it is important to establish standards by which the student’s work may be judged and against which the student may measure his or her own achievements. To rate the paintings created by the subjects, a rubric is used for all of the purposes mentioned above. The "evaluation process" section shows the design of the rubric that was used for the instructional material of this project.

**Assessment Strategies**

Performance-based assessments can be designed according to rubrics that assess a student's ability to develop a process, a product, or both. A good performance task allows for the assessment of many dimensions of students learning and complex cognitive processes. Although the task is performed for the primary purpose of evaluation, in many performance strategies new learning also figures as an important component, which view I agree with, and implemented in the project rubric. Numerous exercises may be required for students to complete a single complex performance task. Examples of performance-based assessment tools and strategies from Beattie (1997) are as follows:

1. portfolios
2. journals, diaries, logs
3. integrated performances, including:
   a. demonstrations, role-playing
b. extended written projects  
c. novel written projects  
d. individualized student projects  
e. group projects  
f. simulations and contrived situations  
g. demonstrations  
h. experiments

4. group discussions
5. exhibitions
6. audio tapes and video tapes
7. computers

Within the construct of a rubric, different rating scales are used. As Beattie points out, “rating scales rely on a numerical, verbal (sometimes called category), or graphic system for translating judgments of quality or degree.” (Beattie, 1997, p. 63) Rating scales are particularly appropriate for examining problem-solving processes, products, and attitudes or motivations. Various assessment strategies employ a rating scale as part of their design. Likert-type rating scales use anchors such as, *always, very often, sometimes, hardly, hardly-ever,* and *never.* For classroom art assessments, simply-stated anchors, such as *can’t do, can barely do, can do, can do well,* and *Wow!* may be used. In the rubrics used to evaluate the paintings for this project, the following scale is used. 1 (*disagree*), 2 (*semi-disagree*), 3 (*semi-agree*), and 4 (*agree*). Due to the scope and time restriction of this project, only demonstrations (3a) and individualized student projects (3d) will be assessed.

Explicitness, fairness, and meaningfulness are the criteria for judging a grading system. The following are Beattie's criteria of art assessment. The question examples following each guideline helps to define each classification:

1. Clarification of the purpose(s) of the assessment. Questions should be answered: (a) What am I assessing? (b) Will assessment results determine a student’s advancement in art class? (c) Who is making the decisions that will result from the outcomes of this assessment? (d) What type of assessment format would best fit the level of the students being assessed?
2. Clarification of the domain to be assessed. Questions should be answered:
   (a) What motor skills related to art (responding, appreciating, valuing)
   will be assessed? (b) Which core skills most affect art learning and
   assessing?

3. Clarification of the assessment task or strategy. Questions should be
   answered: (a) Does the assessment strategy match the purposes of the
   assessment? (b) What criteria will be considered for scoring purposes?

4. Clarification of the assessment task exercises. Questions should be
   answered: (a) How much time will students be given to complete a task? (b)
   How much evidence will be required?

5. Clarification of the scoring or judging plan. Questions should be answered:
   (a) What will be the scoring or judging strategy? Rating scale? Checklist?
   Interview? Scoring rubric? (b) What will be the weighting of scores? (c)
   Who will score the task? Does the rater need training?

6. Clarification of reporting-out plan. Questions should be answered: (a)
   Should results be reported in a norm-referenced context, or in a criterion-
   referenced criterion? (b) To whom should the results of the assessment be
   reported? (p. 116-121)

The grading rubric section describes the evaluation process in more detail and shows
how the rubrics are created and implemented in order to rate the subjects’ paintings.

Goals and Methods of the Instructional Material

The main objective of this project is to teach the basic skills of Chinese bamboo
painting, along with some Chinese cultural background, within a restricted time period.
In light of this main objective, this material is designed to teach readers to (a)
understand the inner meaning of Chinese bamboo painting, (b) compose a bamboo
painting, and (c) avoid the common mistakes of bamboo painting.

Target Audience Analysis

The subjects of the workshops were university and high school students who
voluntarily participated in these workshops because of their interests in art and Chinese
culture. The ages were between 15 and 24. The future target audience for this workshop
is high school students, college students, and faculty from universities and high schools
who may or may not know basic Chinese characters.
Instructional Design

An instructional design theory provides the guidelines and methods for developing instruction. HMSO (1959) indicates that “people cannot be expected to grow in visual awareness unless they are taught.” Their nature is such that if they are merely surrounded by attractive materials and then “allow[ed] to develop on their own,” not only they will fail to develop, but they will repeat a performance ad nauseam and with diminishing effort and sincerity if feeling (HMSO, 1959, p. 220-221). Arts and crafts are not merely recreation; they involve hard work and constant effort to master materials and techniques.

The instructional material focuses on different aspects of Chinese painting: the culture, the styles, the use of equipment, and the structure of bamboo, all necessary to competently compose a bamboo painting. Examples and illustrations are used to make the instruction clear and concrete. An issue under debate in the literature has been about the use of non-examples (examples of what not to do) in instructional material. Anderson expressed the value of non-examples when he said that “both examples and non-examples are useful” (Anderson, 1989, p. 68). I agree with Anderson. Non-example illustrations help learners to avoid common mistakes. Therefore, my instructional material includes non-examples.

Psychomotor Skills

The instructional material focuses on developing the psychomotor skills necessary for Chinese painting so that students will be able to create their own work after having taken this 3-hour workshop. In the everyday world, physical or psychomotor skills are used in diverse ways. In a world affected by automation everywhere, people have more time to spend on activities. But why are psychomotor skills important to this project? Chinese painting requires a specific set of psychomotor skills in order to perform and create this unique type of art work. The hand, wrist, and arm movements used in Chinese ink painting are foreign to most westerners, and so these psychomotor skills must first be learned in order to paint Chinese bamboo. Thus we see that the importance of the psychomotor domain of instruction.

Given that psychomotor skills are such an important aspect of Chinese painting, five different stages of psychomotor skill development were used as a guideline in designing the instructional material. As an outline, I used the five stages of
psychomotor skills development as discussed by Romiszowski (1999). These stages, with explanations of how they are used in the instructional material, are as follows:

1. Knowledge acquisition of what should be done, to what purposes, in what sequence, and by what means (Romiszowski, 1999). This section presents the goals of Chinese painting. It also explains why bamboo is such an important subject in the eyes of Chinese artists. The instructional material also teaches readers how to compose a bamboo painting in the proper sequence.

2. Execution of the actions given in a step-by-step manner for each step of the operation (Romiszowski, 1999). Chapters 5 through 9 demonstrate the ways of painting each part of bamboo in a step-by-step manner.

3. Transfer of control from the eyes to other senses, or to kinesthetic control through muscular coordination (Romiszowski, 1999). The readers start to familiarize themselves with the equipment and materials of Chinese painting through practice.

4. Automatization of the skill (Romiszowski, 1999). After sufficient practice, the readers can reduce the need for conscious attention and create the painting without focusing directly on the details of the task at hand.

5. Generalization of the skills to a continually greater range of applicable situations (Romiszowski, 1999). This last stage applies to the productive, strategic, planning end of the skills continuum. After reading the nine chapters of the project text, the readers can then create their own painting.

**Instructional Material Description and Delivery**

The instructional material is designed either to be given in a 3-hour workshop or to be on an individual basis. The instructional material includes a workbook section that consists of paper-based practice pages and video clips that demonstrate how to do bamboo painting. A workbook section is included in the material for the following reasons: (a) it is easier to implement in all classroom settings; (b) it provides practice space along with stroke orders and instruction, so the reader can gain the key ideas more easily as they practice along; (c) when doing Chinese painting, the equipment and materials (brushes, ink, etc.) take up a lot of space already, so a workbook-based instruction makes it easier for readers to arrange the space in their working
environment, such as a desk or table; and (d) the presenter of the workshop does not have to worry about carrying extra paper, for the text provides sufficient practice space.

**Instructional Material Structure**

The instructional material includes nine chapters. The outline is shown in Table 1. The timeline listed on the right side of the table indicates the suggested time period for each chapter. Each chapter takes approximately 10-20 minutes to finish.

Chapter 1 consists of basic background information about the inner meaning of Chinese painting and bamboo within Chinese painting. It is important to cover this information because most westerners are not familiar with Chinese bamboo painting. Without a basic understanding of the traditions that are an integral part of bamboo painting, the readers may not understand why certain tasks are arranged the way they are, and they might be inclined to ignore important elements.

Table 1

**Instructional Material Outline**

<table>
<thead>
<tr>
<th>Chapters</th>
<th>Title</th>
<th>Suggested instructional time period</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chapter 1</td>
<td>Bamboo 竹-The Gentleman Scholar</td>
<td>10 min</td>
</tr>
<tr>
<td>Chapter 2</td>
<td>Equipment and Materials</td>
<td>20 min</td>
</tr>
<tr>
<td>Chapter 3</td>
<td>Writing Yong 永</td>
<td>30 min</td>
</tr>
<tr>
<td>Chapter 4</td>
<td>Bamboo Styles</td>
<td>15 min</td>
</tr>
<tr>
<td>Chapter 5</td>
<td>Stalk 竹竿</td>
<td>20 min</td>
</tr>
<tr>
<td>Chapter 6</td>
<td>Joint 竹節</td>
<td>15 min</td>
</tr>
<tr>
<td>Chapter 7</td>
<td>Branch 竹枝</td>
<td>20 min</td>
</tr>
<tr>
<td>Chapter 8</td>
<td>Leaves 竹葉</td>
<td>30 min</td>
</tr>
<tr>
<td>Chapter 9</td>
<td>Bamboo Composition</td>
<td>20 min</td>
</tr>
</tbody>
</table>

Total Length of the workshop 3 hours

Chapter 2 introduces the four basic pieces of equipment that are used in Chinese ink painting: the brush, ink, paper, and the ink stone. Twenty minutes is required to complete this chapter since this stage is important in familiarizing beginners
with the new equipment and in helping them to develop some fundamental skills. Chapter 3 demonstrates Chinese calligraphy, along with how it applies to bamboo painting. The four main stroke practices of calligraphy also apply to the four main structures of bamboo painting as exhibited in Chapters 5 through 8. In these four chapters, video clip demonstrations are provided. Chapter 9 is a review chapter; the two main video clips on how to compose a bamboo painting are included in this chapter. Chapters 1 and 4 provide more of an emphasis on cultural information. Therefore, for workshops with less then 3 hours of time, chapters 1 and 4 can be skimmed through, and the time used for the other chapters, which cover the basics of how to comprehend, practice, and compose a Chinese bamboo painting of your own.

Chapter Contents

Each chapter in this instructional material, *Founding Chinese Bamboo Painting in Calligraphy: The Fourfold Approach*, is presented in a logical, step-by-step order so that the reader can easily internalize the ideas and knowledge needed to paint bamboo. The following sections cover the main content of each chapter. Representative sample pages are included for each chapter. The complete content of the chapters are given in Appendix A.

Chapter 1: Bamboo 竹 -The Gentleman Scholar. This first chapter covers the inner meaning of bamboo in Chinese culture. Figure 1 shows the layout of the first page in Chapter 1. Some main questions that are answered in this chapter are as follows: Why has bamboo been a popular subject for artists for centuries? Why is it that bamboo is a symbol of the gentleman scholar? What does it mean if you receive a bamboo painting as a gift? When did the art of Chinese painting begin? What makes a good Chinese ink painting? This chapter answers these and other questions. The “Three Friends in Winter” and the “Four Gentlemen” are also introduced in Chapter
1. The bamboo, pine trees, and plums that are commonly seen together in Chinese paintings, are known as the "Three Friends in Winter;" Plums, orchids, bamboo, and Chrysanthemums are known as the "Four Gentlemen." An explanation is given as to why they are so loved by Chinese artists (see Figure 2). Also in this chapter, the basic principles of Chinese painting are introduced, along with the concept of yin and yang, host and guest, and the importance of brush strokes. The full version of Chapter 1 is presented in Appendix A.

Chapter 2: Equipment and Materials. After being introduced to bamboo painting, and learning the inner meaning of bamboo in Chinese culture, in Chapter 2 the list of equipment and their uses is given. What is known as the “Four Treasures of the Room of Literature” are introduced. These four treasures are: the brush, the ink, the paper, and the ink stone (see Figure 3) that are used in the painting process. The following questions are answered in Chapter 2: How do you handle a Chinese paint brush? How do you put the ink on the brush? And how do you make different ink effects?

Practice space is provided for readers so that they can get acquainted with the equipment (see Figure 4). By practicing, the readers will come to know how to control the water and the ink on the brush and how to make different strokes with different degrees of ink color. The full version of Chapter 2 is presented in Appendix A.

Chapter 3: Writing Yong 矣. This chapter describes how symbolic dots and strokes can be applied to paintings. This chapter introduces the four strokes of writing yong (矣) with the intention to engage the writing system into painting (see Figure 5).

Explanations are provided, answering why it is important to become familiar with this word and how it is related to bamboo painting. In short, the four basic brush strokes of yong are the four basic brush strokes used in Chinese bamboo painting. This chapter also provides lots of opportunities for readers to practice the four strokes of yong. Every stroke has one full page of practice space with traceable models, illustrations of brush movements, and stroke orders. Later on, the readers will be able to see the connection that exists between the Chinese writing system and Chinese painting. The full version of Chapter 3 is presented in Appendix A.
Bamboo is a favorite subject for many Chinese brush painters. It symbolizes the gentlemanly qualities of grace, honesty, humility, and courage. Elizabeth Yu Gillworth
http://www.brushpaintings.com/paintings?img=1

The Chinese say “Good bamboo shoots spring up outside the fence” (i.e. Good daughters marry and leave the home), and “Young bamboos are easily bent” (i.e. one must educate when young). Jenyns, Sooame, A background to Chinese painting, New York, Schocken Books, 1966, p. 280

As the bamboo is green all the year round it is often combined with the fir as a symbol of endurance and consistency. “The hollow bamboo has dropping leaves,” is a description if a Chinese gentleman; it suggests that he is as unprejudiced as the hollow stem and as modest as the dropping leaves. By its symbolism and its elegance the bamboo has lent itself most happily to Chinese painting. Jenyns, Sooame, A background to Chinese painting, New York, Schocken Books, 1966, p. 201

Bamboo is graceful, flexible and adaptable; it can flourish under almost any conditions except that of extreme cold. It bends under the sun as a nation may bend under adversity or foreign rule, but it does not break. The bamboo symbolize far better than any other plant the spirit of the people whose artists still love to trace the delicate pattern of its leaves.

Figure 1. Sample page of Chapter 1.
The "Four Gentlemen" represent the following:

<table>
<thead>
<tr>
<th>Plant</th>
<th>Season</th>
<th>Symbol</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plum</td>
<td>Winter</td>
<td>Renewal, Rejuvenation, Continuity, Hardiness of Life</td>
</tr>
<tr>
<td>Orchid</td>
<td>Spring</td>
<td>Unity, Modesty</td>
</tr>
<tr>
<td>Bamboo</td>
<td>Summer</td>
<td>Endurance, Flexibility, Perseverance</td>
</tr>
<tr>
<td>Chrysanthemum</td>
<td>Autumn</td>
<td>Persistence, Patience, Fortitude</td>
</tr>
</tbody>
</table>

Plum - Symbol of the "Winter Season" - with its secret promise of "Renewal and Rejuvenation": the perpetual "Continuity & Hardiness of Life."

Orchid - Symbol of the perennial "Hope of Spring" and the bright promise of Spring itself, in its "Unity and Modesty."

Bamboo - Symbol of the "Summer Season," and its "Endurance, Flexibility and Perseverance."

Chrysanthemum - Symbol of the "Autumn Season": "The Triumphant in Life: Persistence, Patience, and Fortitude."

*Figure 2. Sample page of "Three Friends in Winter" and the "Four Gentlemen."*
The Four Treasures of the Room of Literature 文器四寶

The four most essential materials used for Chinese brush painting are so precious they are often referred to as treasures. When you mention “The Four Treasures,” Chinese people will immediately know that you are talking about the brush, ink, paper, and ink stone. Without the Four Treasures, there would be no Chinese Brush Painting as it is known and appreciated today.

Brush

The brush for Chinese ink painting is made from animal hair, (sheep, deer, fox, wolf, mouse, rabbit) tied together in small bunches and attached to a hollow reed or very thin bamboo stem. The tips of the hairs form a very fine point that is extremely sensitive and pliable.

Paper

絹 (juàn) silk, the general term for this common ground for painting both paper and silk are used as grounds, and the choice depends chiefly upon the preference of the artist. Silk lends itself to better advantage with the use of the bright mineral colors, while the freer impressionistic styles are usually more effective on paper. Nowadays, the paper used in Chinese painting is coarse in weave and is more porous than that which is used in the West. The same paper for writing and painting were used in ancient China.

Figure 3. Sample page of “Four Treasures of the Room of Literature.”
Use of Ink

- A nice line with different degrees of ink color
- A dull line with only one ink color
- Natural grey shade created by the light and dark ink mix

Try It! Practice the following different degrees of ink color, from dark to light.

Keep adding water to make a lighter tone.
Figure 5. Sample page of “Strokes of Yong” in Chapter 3.
Chapter 4: Bamboo Style. Artists in ancient China portrayed bamboo in different weather conditions by the shape and arrangement of the leaves and branches (see Figure 6), a tradition that continues today.

This chapter teaches the three main weather conditions used in bamboo painting. After reading this chapter, the readers will be able to tell if a bamboo portrayed in a painting is in a rainy, windy, or sunny day. The full version of Chapter 4 is presented in Appendix A.

Chapter 5: Stalk 竹竿. In Chapter 5, the readers will learn how to hold the brush when performing the brush strokes used in making the stalk (see Figure 7). Chapters 5 through 8 consist of demonstrations and practice lessons, similar to those seen in Chapter 3, for the four main structures of bamboo. Chapter 5 focuses on the stalk, which is the first thing that one paints when constructing bamboo.

Illustrations of two types of stalks are demonstrated in this chapter. Examples of poorly drawn stalks are provided so that the readers can make sure that they do not make the same mistakes. A box at the end of Chapter 5 contains the four principles of painting stalks. This serves to highlight the important principles of painting stalks. Also, demo video clips are provided in the CD-ROM so that readers can compare their own work with the teacher’s work.

As Wooff (1976) says, “audio-visual media, particularly television, will play an increasing part in teaching in schools, particularly in art lessons, since they have a wide potential application, and that new views of what may be considered art media will be demanded by changing concepts of the art activity” (Wooff, 1976, p. 39). The full version of Chapter 5 is presented in Appendix A.

Chapter 6: Joint 竹節. The construction of joints is given in this chapter. Joints are the second step that one adds after painting the stalks. In this chapter, students will learn how to paint joints, where to paint them, and how big, wide, and dark they should be. To fulfill these goals, two unfinished bamboo stalks (see Figure 8) are provided for the readers to add the joints. Illustrated examples of poorly drawn joints (Figure 9) and demo video clips from the CD-ROM are provided so the students can avoid common mistakes. Chapter 6 is presented in full in Appendix A.
As was mentioned in chapter one, bamboo itself has unique characteristics. It stands handsome and elegantly tall. The vigorous growth, the ability to remain fresh and green all year round, and the unyielding quality before the heavy wind are all important aspects. Artists in ancient China portray bamboo in different times, seasons, and weather conditions by the movement, shape, and arrangement of the leaves and branches.

The basic three techniques introduced in this section follow the major schools of the Yuan and Ming dynasties, especially the traditional Bamboo School (1018–1078). Book of the Bamboo p. 145

On a sunny day

Each leaf is completed in one steady, quick stroke with the brush pressed down at the base, and released towards the tip, so that the base is round and full, while the tip is sharp and pointed. The leaves are painted with the strength of the wrist and arm, not with movement of fingers.

A composition of bamboo in the sun. Book of the Bamboo p. 161

The movement and suppleness of the bamboo is shown through the arrangement of the leaves with variation in the size of leaves, some placed closer together, some farther apart, crisscrossing, and layering of the leaves. Book of the Bamboo p. 159

Figure 6. Sample page of “Bamboo Styles” in Chapter 4.
Try It! Practice the stroke for a section of bamboo stalk.

Shading

The stroke of bamboo stalk is also called the side brushstroke.

After dipping into the gray ink mixture, touch the tip of the brush to the black ink to make a darker shading on the left side. This is like the last stroke we learned in Yong.

Figure 7. Sample page of practice spaces of bamboo stalk in Chapter 5.
Figure 8. Sample page of practice spaces of bamboo joint painting in Chapter 6.
This is how you should hold the brush when you paint joints. The joints divide the stalk. They should be added in darker ink than the stalk itself.

\( \text{Add the joints before the stalk is dry.} \)

Please watch the demo of file name (CHS & 6-Stalk & Joint) on your CD-ROM.

Proper width of joint is the stroke extending beyond the side of bamboo stalk as far as the arrows in this illustration. Long, Jian. Chinese ink painting: techniques in shades of black. London, Blandford Press, 1984, p. 26, 27.

- Correct joint
- Curved in the wrong direction
- The stroke runs back into the stalk
- Too light and need to be bold
- Droops down with no flick at all

Common mistakes of joint painting:

Principles of joint painting:

1. Joints should not be equal in size.
2. Joints should not be too curved.
3. Joints should not be too large or too small.
4. The spaces between joints should not be too large.

Figure 9. Sample page of instructions of bamboo joint painting in Chapter 6.
Chapter 7: Branch 竹枝. Adding branches is the third step that the student learns when painting bamboo. In this chapter students will learn how to arrange the branches from the stalks. They will also learn how and where the branches should grow and how many there should be. A picture of how to hold the brush when painting branches is provided, along with illustrations and demo video clips (see Figure 10). Figure 11 illustrates the practice exercise given for students to practice branches they just learned, adding them onto the provided stalks. By practice, they learn to apply the rules of where the branches should grow and how many there should be. Chapter 7 is presented in full in Appendix A.

Chapter 8: Leaves 竹葉. Adding leaves is the last step in painting bamboo. It is also the most difficult. In this chapter, students will learn through practice how to paint different arrangements of leaves.

They will also learn how the leaves can be arranged to portray different moods. Upward pointing leaves depict bamboo as it would appear on a sunny day. Drooping leaves signify a rainy day. Leaves pointing in the same direction with twisted tips signify a windy day. Readers can practice along as they view the demo video clips so that they can monitor their progress. The challenge in designing this chapter was that there are very many ways of arranging leaves, depending on what you are trying to communicate. Therefore, this chapter contains the most pages for practicing. Chapter 8 is presented in full in Appendix A.

Chapter 9: Bamboo Composition. This chapter is a review of all of the principles concerning each part of a bamboo painting. It also contains a list of all of the common mistakes made. This list is meant to serve as a self-evaluation chart so that readers can chart their own progress. This design is given so that anyone can conduct this workshop, with the knowledge of ways of evaluating a Chinese bamboo painting provided. Chapter 9 also introduces in detail the steps of painting bamboo on a sunny day (see Figure 14). In addition, there are video clips with two examples on the CD-ROM of how to compose bamboo paintings. The full version of Chapter 9 is presented in Appendix A.
Figure 10. Sample page of instructions of painting bamboo branch in Chapter 7.
Try It! Practice the strokes for branches. Stems grow from alternate sides of the stalk. Remember, from the left, start away from the stalks; from the right, start at the base of the stalk.

Figure 11. Sample page of practice spaces of painting bamboo branch.
Figure 12. Sample page of instructions of painting bamboo leaves in Chapter 8.
Try It! Practice the strokes for 1 leaf. Hold the brush with the tip pointing to the top of the paper. Twist the handle slightly to the left and then to the right to make a blunt start, then brush the tip of the brush straight toward you, gradually lift the brush until only the tip of the brush is still touching the paper. Pause and then flick the tip of the brush up off of the paper to end with a point.

Figure 13. Sample page of practice spaces for painting bamboo leaves.
Composition

When composing a Chinese ink painting, keep in mind the relationship between the host and the guest, as indicated in chapter one. The guest should never dominate the host, and the host should be closer to the center of the painting, but not right in the middle of it. In addition, the bamboo should not be in the middle of the painting, as this would make the bamboo the dominant feature of the painting, something that would not make for a very humble painting. Let’s take a look at the steps of how to paint bamboo in the sun, and then we’ll review the four main parts of bamboo painting:

1. The steps of painting bamboo are:
   - stalk
   - joints
   - branches
   - leaves

2. The branches grow from the joints, and they do not have the same length.

3. The branches and the leaves should both be abundant above the mid-length of the stalk. Close to the base of the stalk there are broken branches, old leaves, or leafless twigs.

4. Lighter ink is used for new leaves as well as for leaves in the back. Darker ink is used for old leaves, as well as for leaves in the front. [Book of the Bamboo p. 161]
Evaluation

Evaluation is a crucial factor, especially in this instructional material, for the main goal was to find out how effective the learning of calligraphy stroke techniques improves the learning of how to paint Chinese bamboo. According to Beattie (1997), a quality classroom art assessment should meet the following principles:

1. Assessment is student-oriented and teacher-directed.  
2. Assessment is multi-layered.  
3. Assessment is continuous and focused on providing ongoing information.  
4. Assessment is contextual and authentic.  
5. Assessment represents an appropriate balance of formal and informal strategies.  
6. Assessment focus on both products and processes.  
7. Assessment provides opportunities for students to revise and make changes in products and processes.  
8. Assessment is responsive to different types of knowledge.  
9. Assessment is responsive to an expanded notion of intelligence and creativity.  
10. Assessment is concerned with students’ preconceptions and misconceptions.  
11. Assessment is equal for all.  
12. Assessment is standards-based.  
13. Assessment is criterion-referenced and compares students’ performances to past performances.  
14. Assessment is responsive to collaborative and cooperative learning.  
15. Assessment is explicit and ordered.  
16. Assessment exemplifies the latest and best assessment techniques. (p. 6-9)

Besides the assessment itself, there are two main concerns that need to be emphasized, which are validity and reliability. Validity is defined as an integrated evaluative judgment based in theoretical rational and empirical evidence about the soundness of the interpretation of assessment results and the usefulness of results for their intended purpose.
Performance-based assessment, however, has outdistanced study and research in psychometric issues related to the topic. Experts in the field of tests and measurement are still debating whether performance assessments require unique validation criteria. (Beattie, 1997, p. 124-127) notes 12 validation criteria that are believed useful for judging the validity of performance-based art assessments. The 12 validation criteria are as follows:

1. Relevance
2. Content fidelity and integrity
3. Exhaustiveness
4. Cognitive Complexity
5. Equity
6. Meaningfulness
7. Straightforwardness
8. Cohesiveness
9. Consequences
10. Directness
11. Cost and efficiency
12. Generalizability.

On the other hand, reliability can be defined as the consistency of assessment scores. This means how many times the same assessment, when repeated under the same conditions, would be given the same score. This lies at the heart of reliability. Reliability affects the quality of the decisions made on the basis of the derived score. Unreliable results are never valid (Beattie, 1997, p. 127-128).

Herman et al. (1992) provide the guidelines for building reliability and validity into alternative/performance assessments. These assessments are included in Table 2.
Table 2

Building Reliability and Validity into Alternative/Performance Assessments

<table>
<thead>
<tr>
<th>Test development stage</th>
<th>Strategies for Ensuring Valid Score Inferences</th>
</tr>
</thead>
<tbody>
<tr>
<td>Identifying testing goals</td>
<td>Link goals to important curricular objectives related to transferable or fundamental content, skills, and processes.</td>
</tr>
<tr>
<td></td>
<td>Create clear, unambiguous goal statements.</td>
</tr>
<tr>
<td>Creating task descriptions</td>
<td>Create fully developed task description.</td>
</tr>
<tr>
<td></td>
<td>Review task description against goals.</td>
</tr>
<tr>
<td>Selecting/developing criteria</td>
<td>Review criteria against goals and underlying leaning, instructional, and/or curriculum theory.</td>
</tr>
<tr>
<td></td>
<td>Ensure criteria reflect teachable goals.</td>
</tr>
<tr>
<td></td>
<td>Ensure criteria don’t favor a particular gender, ethnicity, language background.</td>
</tr>
<tr>
<td>Scoring performances/products/process</td>
<td>Classroom use: score systematically and recheck work periodically.</td>
</tr>
<tr>
<td></td>
<td>Score like topics or like dimensions at same time.</td>
</tr>
<tr>
<td></td>
<td>Large-scale use: train raters, monitor consistency.</td>
</tr>
<tr>
<td></td>
<td>Document the several kinds of reliability (intrarater, interrater, across topic, occasion, for students over time).</td>
</tr>
<tr>
<td></td>
<td>Ensure minimal levels of “reliability” (each kind that’s appropriate) and a reliability coefficient of at least .70 for most assessments, .90 for high-stakes tests.</td>
</tr>
<tr>
<td>Using alternative assessments</td>
<td>Limit inferences from scores to the use for which the assessment was developed or for which you find multiple sources of evidence that the score can be used in a particular way.</td>
</tr>
<tr>
<td></td>
<td>Find evidence to support score-based inferences in the test manual, research studies, from colleagues.</td>
</tr>
<tr>
<td></td>
<td>Check inferences from test scores against other kinds of information, your prior experience, other scores, other work student does, observations.</td>
</tr>
<tr>
<td></td>
<td>Never make an important decision based in only one score.</td>
</tr>
</tbody>
</table>

**Grading Rubric and Survey Questions**

The designer designed the rubric used for this workshop (see Appendix E) based on the information that is covered in the Assessment Methodology Review section that is given in the Literature Review section of this paper. Visual examples are included in the rubric in order to demonstrate the characteristics of both skilled and less skilled paintings, along with detailed explanations so that a teacher presenting this workshop can have a better idea of how to grade the paintings. There are 10 short answer questions (see Appendix B) along with one matching question to assess subjects’ understanding of the cultural background of Chinese painting after their reading of this material. There is a 22-question survey (see Appendix B) that is designed to evaluate the whole design of this instructional material.

There were two different kinds of data collected from the workshops. One kind consisted of the pre and post test paintings from each subject. The other type consisted of a written survey regarding learners’ attitudes about the instructional material. The paintings were evaluated by 3 raters according to the rubric that was created. A score was then assigned to each painting based upon this rubric (see Appendix F).

The written survey asks for two types of responses. One type consists of open-ended questions. The other type consists of checking ones’ degree of agreement with statements. Therefore, the former type will be analyzed qualitatively, whereas the latter type will be analyzed quantitatively.

**Small Group and Field Trial Evaluation**

A small group (4 subjects) and a field trial evaluation (19 subjects) were conducted to determine if the instructional material could be used effectively in the environment for which it was intended. Due to the lack of subject matter experts, the specialist review was conducted by the designer, myself.

**Small Group Participant Description**

Four subjects participated in the small group evaluation. The four subjects were students at Brigham Young University. Their areas of study were in Pre-Art, English, and Philosophy.
Small Group Evaluation Process

The small group evaluation was conducted in a four-subject setting. When subjects were invited to participate in the evaluation, they were told beforehand that the workshop would take about 3 hours. They were all very cooperative, so there was sufficient time to show the prototype version of this project in detail. The workshop began with a pre-test. The four subjects were divided into two groups, each given a different original Chinese bamboo painting to look at. The subjects then attempted to paint bamboo from the model. This took about 10 minutes. While the subjects were reading the material and practicing, the designer walked around to provide coaching. She also told them that, as they went through the instructional material, each of them should (a) keep track of their reading time for each chapter, (b) write down comments and question at any time on the course manual, (c) follow the instructions (since some subjects skipped the practice sections), and (d) let me know when they started a new chapter so that I could play the CD-ROM for them at the appropriate times.

Field Trial Evaluation

A field trial evaluation serves the purpose of determining if the product can be used effectively in the environment for which it was intended. The survey that was given provided written feedback on the instructional material. The same questions were used as those in the small group evaluation. The paintings were rated by the same three raters for the small group paintings evaluation.

Field trial evaluation participant description. Nineteen subjects (seven were female and twelve were male) participated in the field trial evaluation. These subjects were sophomores in an Advanced Placement World History class at Springville High School. Seventeen of those subjects completed the paintings and the survey; two subjects completed the paintings but not the survey.

Field trial evaluation process. In a high school class setting, only 80 minutes were available for this workshop, which necessitated that each section took only 5-10 minutes to finish. The designer had only 80 minutes to conduct the workshop and evaluation. Although the class completed the 11 short-answer questions, there was not enough time for subjects to read through all nine chapters. A Power Point presentation was used to present the text. Subjects were able to read from the text as the designer displayed the Power Point slides. In congruence with the evaluation plan,
the evaluation of this project began with the same pre-test used in the small group evaluation. Subjects were asked to paint bamboo from the models that were provided. Subjects chose which painting they wanted to use as their models. There was not any coaching given in this process. This took about ten minutes. Because there was not enough time for subjects to read through and practice all of the material themselves, practice exercises were assigned from each chapter in the text. During each practice period the designer walked around the classroom and provided coaching. Approximately 3 to 5 minutes were required to complete each practice section.

After having given an introduction to the material, the subjects were shown three video clips which presented examples of how the original artist created the paintings, and how various parts of bamboo might be represented. Subjects then did the same painting again. After they had completed the painting, subjects were asked to line up their pre and post test paintings to be photographed. After the photographs had been taken, the post-test questions were distributed. These consisted of 10 short answer questions and one matching question. These questions assessed the subjects’ understanding of the cultural background of Chinese painting. Subjects then received a 22-question survey to assess the overall design of the instructional material.

Results

Small Group Evaluation Results

Both qualitative and quantitative data were collected in the small group evaluation. Table 3 present the results from the survey questions. There are five categories in all, they are “Excellent,” “Very Good,” “Good,” “Fair,” and “Poor.” All the check marks fall within the first three categories. 75% of the subjects marked that they strongly agreed the content is presented in a visually appealing way; 100% of the subjects agreed that the instructional material was well organized and easy to follow.

The results from the Yes/No Questions showed one subject listed the content being too long as the reason for it being too difficult. Another subject described the practice sections for each chapter as needing more space for comments concerning the layout of this material.
Table 3

Survey Questions and Results from the Small Group Evaluation

<table>
<thead>
<tr>
<th></th>
<th>Excellent</th>
<th>Very Good</th>
<th>Good</th>
</tr>
</thead>
<tbody>
<tr>
<td>The material is presented in a logical order that supports learning.</td>
<td>25%</td>
<td>50%</td>
<td>25%</td>
</tr>
<tr>
<td>Each chapter is laid out in a way that makes it easy to grasp key concepts.</td>
<td>25%</td>
<td>50%</td>
<td>25%</td>
</tr>
<tr>
<td>The course is interesting.</td>
<td>50%</td>
<td>25%</td>
<td>25%</td>
</tr>
<tr>
<td>There are interesting activities to accompany the readings.</td>
<td>50%</td>
<td>25%</td>
<td>25%</td>
</tr>
<tr>
<td>The key ideas and main points are clear and accurately restated.</td>
<td>25%</td>
<td>50%</td>
<td>25%</td>
</tr>
<tr>
<td>The content focuses on key concepts that are important in the field.</td>
<td>50%</td>
<td>25%</td>
<td>25%</td>
</tr>
<tr>
<td>The content is presented in a visually appealing way.</td>
<td>75%</td>
<td>25%</td>
<td>0%</td>
</tr>
<tr>
<td>The content is easy to read.</td>
<td>25%</td>
<td>50%</td>
<td>0%</td>
</tr>
<tr>
<td>Graphics, maps, charts, and pictures are used to enhance the content.</td>
<td>25%</td>
<td>75%</td>
<td>0%</td>
</tr>
<tr>
<td>The content covers the right amount of material.</td>
<td>25%</td>
<td>25%</td>
<td>25%</td>
</tr>
<tr>
<td>The content is appropriate for a college level.</td>
<td>25%</td>
<td>50%</td>
<td>0%</td>
</tr>
<tr>
<td>The instructional material is well organized and easy to follow.</td>
<td>0%</td>
<td>100%</td>
<td>0%</td>
</tr>
<tr>
<td>Graphic organizers help in grasping key concepts.</td>
<td>25%</td>
<td>25%</td>
<td>50%</td>
</tr>
<tr>
<td>The headings are bold and easy to read.</td>
<td>50%</td>
<td>25%</td>
<td>25%</td>
</tr>
<tr>
<td>Overall, how would you rate this workshop?</td>
<td>0%</td>
<td>100%</td>
<td>0%</td>
</tr>
<tr>
<td>Overall, how would you rate this instructional material?</td>
<td>0%</td>
<td>100%</td>
<td>0%</td>
</tr>
</tbody>
</table>

The written results from the open-ended questions showed that the subjects were concerned about the length of this workshop, the clarity of the demo video clips, and that they wanted more practice space. Some subjects made comments concerning of the grammatical errors that were occurred present in the instructional material. After conducting the small group evaluation, the designer made some changes based on these evaluation results as follows:

1. Format changes: instead of using words, used more tables and photos to illustrate ideas.
2. Made a list of illustration sources.
3. Rewrote some confusing sentences.
4. Rearranged the order in which various sections of the material appear so
that the whole flows better.
5. Made more headlines so that it is easier to grasp the key points.
6. Used both Chinese and English for some important terms so that readers can learn Chinese phrases if they want to.
7. Shortened the whole instructional material by selecting the most important content and making sure that the workshop would end in 3 hours.
8. Added acknowledgements and project instructions.
9. Sent approval letters.
10. Used more specific wording when explaining new ideas or steps of painting.

The photos of the pre and post bamboo painting tests can be found in Figure 15; they show the differences before and after the workshop. The paintings on the left are pre-tests; the ones on the right are post-tests. The mean scores from the three raters are listed under each painting.

Field Trial Evaluation Results.

Both qualitative and quantitative methods were used for this evaluation. All check marks fall within the first two categories of “Excellent,” and “Very Good.” All of the subjects strongly agreed that the instructional material had interesting activities to accompany the readings. All of the participants rated this workshop as “Excellent.” However, only 65% of the subjects strongly agreed that the key ideas and main points in the material were clear and accurately stated. The evaluation results from the survey questions are presented in Tables 4.

All of the participants provided positive answers toward both the instructional material and the workshop itself. 6% of the audience thought the instructional material had a small font size and was too difficult.
Subject 1’s works
Pre-test scores: 15, post-test: 27

Subject 2’s works
Pre-test scores: 8, post-test: 20

Subject 3’s works
Pre-test scores: 12, post-test: 24

Subject 4’s works
Pre-test scores: 17, post-test: 17

Figure 15. Pre and post test painting results from the small group evaluation.
The results of the open-ended questions inquired written comments from seven males and six females in High School. The comments they provided were all positive, and show that they and highly valued this workshop and the instructional material. Several subjects wrote, “It was really great and fun!” “Fun Fun FUN!” and some noted, “I really enjoyed learning how to do calligraphy and painting. It was interesting, fun, and very well presented.” And “It was great—wish we had more time!”

Table 4:

Survey Questions and Results from the Field Trial Evaluation

<table>
<thead>
<tr>
<th>Questions</th>
<th>Excellent</th>
<th>Very Good</th>
</tr>
</thead>
<tbody>
<tr>
<td>The material is presented in a logical order that supports learning.</td>
<td>82%</td>
<td>18%</td>
</tr>
<tr>
<td>Each chapter is laid out in a way that makes it easy to grasp key concepts.</td>
<td>82%</td>
<td>18%</td>
</tr>
<tr>
<td>The course is interesting.</td>
<td>94%</td>
<td>6%</td>
</tr>
<tr>
<td>There are interesting activities to accompany the readings.</td>
<td>100%</td>
<td>0%</td>
</tr>
<tr>
<td>The key ideas and main points are clear and accurately restated.</td>
<td>65%</td>
<td>35%</td>
</tr>
<tr>
<td>The content focuses on key concepts that are important in the field.</td>
<td>82%</td>
<td>18%</td>
</tr>
<tr>
<td>The content is presented in a visually appealing way.</td>
<td>94%</td>
<td>6%</td>
</tr>
<tr>
<td>The content is easy to read.</td>
<td>94%</td>
<td>6%</td>
</tr>
<tr>
<td>Graphics, maps, charts, and pictures are used to enhance the content.</td>
<td>94%</td>
<td>6%</td>
</tr>
<tr>
<td>The content covers the right amount of material.</td>
<td>76%</td>
<td>24%</td>
</tr>
<tr>
<td>The content is appropriate for a college level.</td>
<td>76%</td>
<td>24%</td>
</tr>
<tr>
<td>The instructional material is well organized and easy to follow.</td>
<td>94%</td>
<td>6%</td>
</tr>
<tr>
<td>Graphic organizers help in grasping key concepts.</td>
<td>94%</td>
<td>6%</td>
</tr>
<tr>
<td>The headings are bold and easy to read.</td>
<td>94%</td>
<td>6%</td>
</tr>
<tr>
<td>Overall, how would you rate this workshop?</td>
<td>100%</td>
<td>0%</td>
</tr>
<tr>
<td>Overall, how would you rate this instructional material?</td>
<td>82%</td>
<td>18%</td>
</tr>
</tbody>
</table>

The photos of the pre and post bamboo painting tests are shown in Figure 16. The paintings on the left are the pre-test; the ones on the right are the post-test.
Figure 16. Pre and post test painting results from the field trial evaluation.
Subject 11’s works
Pre-test scores: 10, post-test: 11

Subject 12’s works
Pre-test scores: 10, post-test: 17

Subject 13’s works
Pre-test scores: 12, post-test: 17

Subject 14’s works
Pre-test scores: 10, post-test: 21

Subject 15’s works
Pre-test scores: 11, post-test: 21

Subject 16’s works
Pre-test scores: 7, post-test: 8

Figure 16 (continued).
Subject 17’s works
Pre-test scores: 14, post-test: 17

Subject 18’s works
Pre-test scores: 17, post-test: 16

Subject 19’s works
Pre-test scores: 8, post-test: 9

Subject 20’s works
Pre-test scores: 12, post-test: 18

Subject 21’s works
Pre-test scores: 10, post-test: 13

Subject 22’s works
Pre-test scores: 13, post-test: 17

Figure 16 (continued).
Subject 23's works
Pre-test scores: 11, post-test: 18

Figure 16 (continued).

Using the SPSS (Statistical Package for the Social Sciences), the $t$-test was implemented in order to determine whether the difference between the pre and post tests was statistically significant. The mean scores of the pre and post test paintings are shown in Appendix G. The scores in each column constitute the mean of the scores of the three different raters.

Tables 5 and 6 show the results from a paired samples $t$-test. The mean of the pre-test scores was 11.78 out of 40 possible points, with a standard deviation of 2.99. The mean of the post-test scores was 17.26, with a standard deviation of 4.72. The difference between the first and the second mean scores constitutes an average gain of 5.48 points, or 46.52%. A paired samples $t$-test showed the difference between means to be statistically significant, $t(23)=-6.65, p<.05$.

Table 5

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>N</th>
<th>Std. Deviation</th>
<th>Std. Error Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-test</td>
<td>11.7826</td>
<td>23</td>
<td>2.99934</td>
<td>.62541</td>
</tr>
<tr>
<td>Post-test</td>
<td>17.2609</td>
<td>23</td>
<td>4.72149</td>
<td>.98450</td>
</tr>
</tbody>
</table>
Table 6

**23 Subjects’ Paired Samples T-Test Scores**

<table>
<thead>
<tr>
<th>Mean gain score</th>
<th>Std. Deviation</th>
<th>Std. Error Mean</th>
<th>t</th>
<th>df</th>
<th>Sig. (2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>5.4783</td>
<td>3.95278</td>
<td>.82421</td>
<td>-6.647</td>
<td>22</td>
<td>.000</td>
</tr>
</tbody>
</table>

Figure 17 shows the difference between 23 subjects’ pre-test (red line) and post-test (green line) scores. Each case number refers to a specific subject number, while the value number indicates the value of each test score. The maximum gain is 12, the minimum gain is 1, and the average gain is 5. Only one subject (subject 4) achieved the same pre and post scores. Only one subject (subject 18) achieved a better score in the pre-test than in the post-test.

![Figure 17. Line chart of pre and post tests scores.](chart.png)
Discussion

*Lessons Learned about Conducting Evaluations*

It is important to selectively choose the subjects of a small group evaluation. Subjects who are interested in Chinese language and culture are ideal because they share certain characteristics in common with those who are likely to end up using the final product. It is important to keep in mind that everyone’s reading pace is different so that the designer can allot an appropriate amount of time for each student. Close attention should be paid to each individual when playing the demonstration video clips and when providing coaching. It is ideal to have a big room with a projector in it when conducting the workshop, since the equipment that is used takes up a significant amount of space and since video clips must be played during the workshop It is also important to always keep clean water on hand in order to keep the water vessels clean when conducting the workshop. For the small group evaluation, two glass vases were sufficient for this purpose. And because of the long length of the evaluation, it is advisable to bring some light background music and some treats for the participants.

*Suggested Instructional Material Enhancements*

The qualitative data from the questionnaire show a variety of suggestions and desirable improvements on this instructional material. The following are the ones that will be implemented for the further improvement focused on the instructional and the assessment design:

1. The addition of audio instruction to the video clips.
2. The inclusion of more questions that require higher order thinking skills, such as the assessment in which subjects critique paintings according to what they have learned.

*Suggested Additional Evaluation Criteria*

Through the evaluation process, it was shown that using Chinese calligraphy to teach bamboo painting is an effective developmental tool. This result can benefit teachers in the future who are teaching Chinese ink painting in the classroom, as well as those who independently use this instructional material. Chinese calligraphy techniques offer an efficient way to learn Chinese bamboo painting. Yet, some more questions need to be answered, such as the relationship between the degree of benefit gained from the cultural background knowledge offered, and the overall performance. The following list
contains the three main criteria of the project that can be assessed and researched in future studies.

1. Consider assessing the degree of cultural background that each subject has before starting the project. This could be effective in isolating the variables that contribute to a person's overall performance.

2. Consider sharing the criteria of performance evaluation with students, so that they know beforehand those factors that will contribute to a better performance.

3. Consider providing the students with an assessment rubric so they can evaluate their own work.
References


HMSO (1959). Primary Education. London; HMSO.


Appendix A

Founding Chinese Bamboo Painting in Calligraphy: The Fourfold Approach
Bamboo - the Gentleman Scholar

Bamboo is a favorite subject for many Chinese brush painters. It symbolizes the gentlemanly qualities of grace, honesty, humility, and courage. *Elizabeth Yu Ellsworth*

http://www.brushpaintings.com/paintings/?img=1

The Chinese say “Good bamboo shoots spring up outside the fence” (i.e. Good daughters marry and leave the home), and “Young bamboos are easily bent” (i.e. one must educate when young). *Jenyns, Soame, A background to Chinese painting, New York, Schocken Books, 1966, p. 200*

As the bamboo is green all the year round it is often combined with the fir as a symbol of endurance and consistency. “The hollow bamboo has dropping leaves,” is a description if a Chinese gentleman; it suggests that he is as unprejudiced as the hollow stem and as modest as the dropping leaves. By its symbolism and its elegance the bamboo has lent itself most happily to Chinese painting. *Jenyns, Soame, A background to Chinese painting, New York, Schocken Books, 1966, p. 201*

Bamboo is graceful, flexible and adaptable; it can flourish under almost any conditions except that of extreme cold. It bends under the sun as a nation may bend under adversity or foreign rule, but it does not break. The bamboo symbolize far better than any other plant the spirit of the people whose artists still love to trace the delicate pattern of its leaves.

When one thinks of the bamboo, images of the Orient instantly come to mind. However, bamboo grows abundantly in other parts of the world including the Americas. Bamboo has many uses: construction material, writing materials (brushes, brush racks), traditional musical instruments (bamboo flutes, reed pipes, mallets), childhood toys (bamboo dragonflies, kites, humming tops), personal articles (ear picks, back scratchers), farm implements (bamboo hats, carrying poles, cattle poles, baskets, scoops, watering buckets, rice seedling wrappers), fishing equipment (fishing rods, fish traps, fish cages), daily utensils (bamboo beds, tables, chairs, cupboards, stools, cradles chopsticks), and even food. *Bamboo GIO, Taiwan* These are just a few practical examples of the versatility of bamboo.

To the Chinese Brush Painter, the bamboo holds special significance. The earliest forms of writing were made on bamboo scrolls before the invention of paper. Bamboo stalk is used in making the paint brushes.

Bamboo stands handsomely and elegantly tall. This vigorous growth, this ability to remain fresh and green all year round, and this unyielding quality before the heavy wind. *Book of the Bamboo p. 145*

In ink painting, different elements have different meanings. The bamboo symbolizes the gentleman scholar, long friendship. The principle can be traced back to Confucian thought. The gentleman scholars represented a class of individuals whose goals were to pursue intellectual development and enlightenment. The moral code of behavior of a gentleman scholar was guided by his or her thoughts, intentions and, actions. The bamboo’s resilient and yet pliable, became the symbol of this social class. The gentleman scholar
is charitable; nature is morally righteous and was filial piety. The bamboo is like a gentleman scholar in that it is unbending against adversity, yet pliable and forgiving. As bamboo does not die in the winter, but remains upright and evergreen even in the harshest of weather, bamboo symbolizes long friendship and a bringer of great happiness. When painting bamboo, one should keep in mind its origins, usage, and history.  

http://www.moifa.com/bamboo.htm

Three Friends in Winter 冬寒

Because it is always green in color, bamboo is a symbol of old age and modesty. Chinese paintings where bamboo and plums appear together represent man and wife.

http://www.chinesepaintings.com/chinese-paintings-bamboo-info.html,

The bamboo, pine trees, and plums that are commonly seen together in Chinese paintings, are known as the "Three Friends in Winter."
Four Gentlemen

Plums, orchids, bamboo, and Chrysanthemums are known as the "Four Gentlemen." From the basic techniques of calligraphy, there evolved the difficult forms and styles of all of Chinese art. Developed first were the bamboo and orchid. Later on, two other "Gentlemen" evolved. Together, the four subjects, or "Gentlemen," (or "Four Seasons") became the important prototypes of the several Chinese brush painting styles. Thus, "The Four Gentlemen" form the basis of all of the complex styles of Chinese brush painting.

The "Four Gentlemen" represent as the following:

<table>
<thead>
<tr>
<th>Plum</th>
<th>Winter</th>
<th>Renewal, Rejuvenation, Continuity, Hardiness of Life</th>
</tr>
</thead>
<tbody>
<tr>
<td>Orchid</td>
<td>Spring</td>
<td>Unity, Modesty</td>
</tr>
<tr>
<td>Bamboo</td>
<td>Summer</td>
<td>Endurance, Flexibility, Perseverance</td>
</tr>
<tr>
<td>Chrysanthemum</td>
<td>Autumn</td>
<td>Persistence, Patience, Fortitude</td>
</tr>
</tbody>
</table>

Plum- Symbol of the "Winter Season" - with its secret promise of "Renewal and Rejuvenation": the perpetual "Continuity & Hardiness of Life."

Orchid- Symbol of the perennial "Hope of Spring" and the bright promise of Spring itself, in its "Unity and Modesty."

Bamboo - Symbol of the "Summer Season," and its "Endurance, Flexibility and Perseverance."

Chrysanthemum"- Symbol of the "Autumn Season": "The Triumphant in Life: Persistence, Patience, and Fortitude."
The "Four Gentlemen" are formidable subjects to learn, however simple they may seem to the untutored Western eye. Mastery of them demands strict discipline, meticulous adherence to traditional brush stroke techniques, and subtle expression of spirit, not slavish representation of the likeness of the subject. The artist's objective is to follow form by expressing the personality of the subject - in an understated revelation of its inner essence.

Whether you are of the East or West, "The Four Gentlemen" salute you in all the beauty and meaning unique to each of "The Four Seasons." [http://www.nanrae.com/index.html](http://www.nanrae.com/index.html)

**Chinese Brush Painting - Origins**

Chinese history opens in 2852 B.C., legend has credited the invention of painting in the mythical Emperor Shun 2256~2208 B.C. [A background to Chinese painting, New York, Schocken Books, 1966 p. 23](http://www.shockenbooks.com/). Traditional Chinese painting has developed continuously over a period of more than five thousand years. Its growth has inevitably reflected the changes of the times and social conditions. In its early stages of development, Chinese painting was closely related to the other crafts, from pottery to the decorations used on bronze, carved jade, and lacquerware.

Following the introduction of Buddhism to China from India during the 1st century A.D., and the consequent carving of grottoes and building of temples, the art of painting religious murals gradually gained in prominence.

**Figures**

The range of subject matters dealt with in figure painting was extended far beyond religious themes during the Song dynasty (960-1127). Paintings of historical characters and stories of everyday life became extremely popular. Techniques were also further refined during this time. [http://www.the-gallery-of-china.com/chinese-figure-painting-6.html](http://www.the-gallery-of-china.com/chinese-figure-painting-6.html)
Landscape

Landscape painting had already established itself as an independent form of expression by the 4th century. It then gradually developed into the two separate styles of “blue-and-green landscapes” and “ink-and-wash landscape.” The blue-and-green landscape used bright blue, green and red pigments derived from minerals to create a richly decorative style. The ink-and wash landscape relied on vivid brushwork and varying degrees of intensity of ink to express the artist's conception of nature, and his own emotions and individuality.

Flower-and-bird

Flower-and-bird painting was separated from decorative art to form an independent genre around the 9th century. A great many artists painted in this genre during the Song dynasty and their subject matter included a rich variety of flowers, fruits, insects and fish. Many of the scholar painters working with ink and brush used a great economy of line. They produced paintings of such things as plum blossoms, orchids, bamboo, chrysanthemums, pines and cypresses, using their subject matter to reflect their own ideals and character.
The Principles of Chinese Painting

It is important to remember that Chinese brush painting is more than just techniques. It is an extension of the Chinese culture and system of beliefs. Before you begin to paint your first brush stroke, you should study and try to understand the far eastern philosophy, history, and culture. Having insights into the culture will greatly advance your understanding and study of Chinese brush painting. The section below will help guide you through a brief introduction of Chinese brush painting principles.

Yin and Yang 陽

A painting should have elements of yin and yang. What is yin and yang? The typical responses are: "good and bad," "weak and strong," "the circle with two dots, one dark, one light." Yin and yang is more than just definitions of words. In a real sense, yin and yang is a system of viewing/experiencing the universe in which we live in.

Yin and yang, in the most basic terms, can be described as dark/light, female/male, interior/exterior. However, these are mere words and can not describe the true essence or meaning. To truly understand yin and yang, one has to express it, either in a painting, in a poem, or in a martial arts system. In summary, the essence of yin and yang is as follows:

- where there is light, there should be darkness,
- where there is clutter, there should be empty space,
- where there is up, there should always be down,
- where there is a closure, there should always be an opening
- where there is decay, there is always life

This is the principle of yin and yang, endemic in all far eastern cultures, and the principle of yin and yang is especially important in Chinese brush painting.
Host and Guest 主從

The host is the predominant subject in a painting. The guest is there to support or to balance the dominant host. Whether you are painting a bird or a flower, there is always a dominant subject in a painting, offset by usually a smaller, less predominant guest. A guest should never dominate the host, or else the painting becomes out of balance and will not look pleasing to the eye. As a rule of thumb, the host should be closer to the center of the painting, whereas the guest should be merely sitting on the side, waiting to be invited into the host's area. acc6.its.brooklyn.cuny.edu/~philsall/images.html.

Brush strokes

Brush strokes convey not only the skill of the handler, but also the essence of the subject. A flower petal painted with one swift stroke will likely look livelier and more vital than a petal painted with many strokes.

The next chapter outlines the basic materials and equipment that you will need in order to embark on your first journey into Chinese brush painting. http://www.moifa.com/intro_brush_painting.htm
The Four Treasures of the Room of Literature

The four most essential materials used for Chinese brush painting are so precious they are often referred to as treasures. When you mention "The Four Treasures," Chinese people will immediately know that you are talking about the brush, ink, paper, and ink stone. Without the Four Treasures, there would be no Chinese Brush Painting as it is known and appreciated today.

Brush

The brush for Chinese ink painting is made from animal hair, (sheep, deer, fox, wolf, mouse, rabbit) tied together in small bunches and attached to a hollow reed or very thin bamboo stem. The tips of the hairs form a very fine point that is extremely sensitive and pliable.

Paper

絹 (juan) silk, the general term for this common ground for painting both paper and silk are used as grounds, and the choice depends chiefly upon the preference of the artist. Silk lends itself to better advantage with the use of the bright mineral colors, while the freer impressionistic styles are usually more effective on paper. Nowadays, the paper used in Chinese painting is coarse in weave and is more porous than that which is used in the West. The same paper for writing and painting were used in ancient China.
**Ink Stone**

An ink stone is a flat stone made of a special rock called “red stone,” with a hollow scoop in the middle where the ink is ground and mixed. One end is more deeply gouged then the other to enable the water to flow into it.

**Ink Stick**

In ancient China, people ground the ink stick on the ink stone with water to make ink. Nowadays, there is liquid ink on the market which makes it more convenient to paint, because you do not have to grind the ink stick for a long time to make the ink.

The ink stick is made of either pine soot (burning pine) or from lampblack (burning vegetable oil). The soot or oil is combined with glue to form a mixture, which in turn is set into a mold. Once the mixture is dried, the ink stick is embossed with the manufacturer's inscriptions or with ornate designs.
**Equipment Arrangement**

![Equipment Arrangement Diagram]

Different kinds of containers and plates for Chinese painting.

For convenience, there is a conventional way of arranging the equipment when doing Chinese painting. We will prepare a brush washing vessel. This vessel has two separate containers; the more separate containers the better, for it can hold more clean water for brush washing. You can also use plastic cups for replacement if you can’t find this kind of water vessel. There are also several white porcelain plates for ink mixing. Here we use glass plates for replacement. You can also use plastic cups. The more water you add, the lighter ink you get. Usually we will prepare each plate for darker ink, dark ink, natural grey shade, and light ink.

---

**How to Handle a Brush?**

The brush should be gasped lightly but firmly, with the middle and index fingers in position opposite to the thumb. This grip is similar to how we hold a pen. However, there is a difference in the angle at which the brush is held. It should be held perpendicular to the paper. Straight up and down, the brush has no front or back, and may be moved easily in any direction. The brush is not moved from the wrist alone, but in harmony with the movements of the whole arm beginning at the shoulder. To insure that this movement remains smooth, the elbow, held horizontally, should be buoyed up.
Use of Brush

The width of the stroke may be determined in two ways, as follows:

Exert pressure on the tip of a vertical brush or "Center Brush." Note: "Center Brush" is the basis of Chinese art and Calligraphy. Remember, only one-third of the brush is used, and this limits the width of the stroke.

This is a full Side Stroke, using the entire length of your brush. This creates the widest stroke!

The heavier the pressure, the thicker the stroke. The lighter the pressure, the thinner the stroke. With too much pressure, the brush loses its shape. The Artist is then unable to complete the stroke properly.

Try It! Practice the center brush strokes and side strokes, you can go from different directions but remember to maintain the same thickness of each stroke.
Try It! Practice the following use of the brush and make different strokes.
Try It! Practice the following strokes.
Try It! Practice the following strokes.
Try It! Practice the following strokes.
Use of Ink

A nice line with different degrees of ink color

Dark ink

A dull line with only one ink color

Natural grey shade created by the light and dark ink mix

Try It! Practice the following different degrees of ink color, from dark to light.

Keep adding water to make a lighter tone.
Try It! Practice the use of water, from wet to dry.

The illustration below shows the way to dry the brush and make the dry-brush stroke. Twist your brush on tissue paper or cloth to dry the brush.
Symbolic Dots and Strokes

As we start to study the techniques of Chinese painting, we must begin by learning the practical application of symbolic dots and strokes. These symbols were first developed in the 4th century in a painting by Gu Kai Zhi (顧愷之) entitled “Nu Shi Zhen” (女史箴圖). The symbols were refined some time later, when the Chinese Ancients observed and depicted nature and combined dots and strokes in an attempt to find a better and easier way to portray nature.

The reason for symbol usage in Chinese painting is that these symbols were identical to the calligraphy strokes of the written language and could be applied to painting. That is why in Chinese usually say “write bamboo” instead of “paint bamboo,” for bamboo strokes are created from the calligraphy strokes.

Furthermore, the Chinese characters used in the written language were developed from pictograms. As a result, for those of Chinese, Japanese, and Korean heritage who are familiar with the hieroglyphic characteristics used in calligraphy and are also familiar with the paintings of the Orient, it is not as difficult to accept these symbols they are applied in painting.
Strokes of Yong

This Chinese character is pronounced “yong,” meaning “always” and “forever.” It contains almost all the strokes in Chinese calligraphy. In painting bamboo, we will only introduce and practice four main strokes.

The first dot is created in five little moves as illustrated in the picture below. In order to make a smooth, round start, the first step is to start from the lower part and then move to the upper part as indicated in numbers 1 and 2.
The second stroke is a horizontal line from left to right. This stroke also contains five movements with the brush. The illustration below shows the movement at each step. Twist your brush down at position 1, and then twist it to the right at position 2, and then twist it down again at position 3. Finally, twist and press it to the left at position 4.

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The third stroke is like the first stroke in the letter “A.” The beginning of this stroke is like the dot, but instead of going right after position 1, here, you go to the left to position 3 after making a left twist at position 2, and then slowly lift your brush up at the end to make a sharp point.
This stroke is a vertical line, like the small letter “1” in English. The way to write this stroke is the same as that in writing the horizontal line but only change the direction to a vertical line.

Steps 1 and 2 are the same as in the dot, but here it goes down on step 3 and then twist at position 4 and then moving up to position 5 and end this stroke with a round end.
As was mentioned in chapter one, bamboo itself has unique characteristics. It stands handsome and elegantly tall. The vigorous growth, the ability to remain fresh and green all year round, and the unyielding quality before the heavy wind are all important aspects. Artists in ancient China portray bamboo in different times, seasons, and weather conditions by the movement, shape, and arrangement of the leaves and branches.

The basic three techniques introduced in this section follow the major schools of the Yuan and Ming dynasties, especially the traditional Bamboo School (1018~1078). Book of the Bamboo p. 145

On a sunny day

Each leaf is completed in one steady, quick stroke with the brush pressed down at the base, and released towards the tip, so that the base is round and full, while the tip is sharp and pointed. The leaves are painted with the strength of the wrist and arm, not with movement of fingers.

A composition of bamboo in the sun. Book of the Bamboo p. 161

The movement and suppleness of the bamboo is shown through the arrangement of the leaves with variation in the size of leaves, some placed closer together, some farther apart, crisscrossing, and layering of the leaves. Book of the Bamboo p. 159
In the rain

At the time of rain or after the rain, the branches and leaves are weighted down by the rain drops. Short branches bend slightly. The bend is more obvious for longer branches. All the leaves hang down because of the raindrops. Leaves in the rain often curl up and appear to be twisted. Some twist near the base part of the leaf; some twist at the tip. *Book of the Bamboo* p. 16, 165

A composition of bamboo in the rain. *Book of the Bamboo* p. 167

Only the long and thin branches are allowed to hang down. The thicker and shorter ones stand straight and stiff. When painting the leaves, remember to paint those in the front first, and then those at the back. Finish painting the leaves on one cane before proceeding to the next one.
In the wind

This illustration shows the wind blowing towards the right side. Paint the smaller leaves first, then the medium and the larger leaves.

To paint the leaves on the top of the cluster, first paint the leaf stem upward, then the leaf towards the right. Leaves often have twisted tips (indicated with an arrow) in a vigorous wind. Book of the Bamboo p. 171

A composition of bamboo in the rain.

Book of the Bamboo p. 173

The best effect is when one can actually feel the bamboo moving and whistling in the gusty wind. Bamboo in the wind should be painted with brisk and sweeping motions, in order to convey a vigorous and heroic mood of the subject matter. Bamboo in the wind has been the favorite subject for Chinese painters. When you see a painting of bamboo and you feel a breeze and cool that the leaves are sweeping with the wind that is a good painting.
A bamboo stalk is very upright. This is how you should hold the brush to make a straight, firm stalk. Hold the brush at an angle of 45 degrees to the paper. Press, and then move your entire arm upwards or downwards by bending at the elbow. 

⚠️ Do not use wrist movements; it will make the stalk curve.

Please watch the demo of file name (CH5 & 6-Stalk & Joint) on your CD-ROM.

Shading

The stroke of the bamboo stalk is also called the side brushstroke. You can see the left side of this stalk is darker than the right side. That is the shading technique. To make this effect, first, dip the brush into the gray ink mixture, then touch the tip of the brush to the black ink to make a darker shading on the left side.

Dry-brush

Dry-brush adds flavor to your bamboo composition. Dip the brush into the ink mixture and then remove most of the ink before painting.
Common mistakes in painting bamboo stalks:

- Not enough ink.
- Pressed the brush too hard.
- Too much twist.
- Not enough twist.

**Principles of stalk painting:**

1. Leave space between the stalks for the joints.
2. Make the stalks different in length.
3. Make the stalks in the foreground in dark tones.
4. Make the stalks in the back in light tones.

⚠️ Avoid stalks that appear withered, swollen, or too dark in tone.

**Try It!** Practice the stroke for a section of bamboo stalk.

**Shading**

The stroke of bamboo stalk is also called the side brushstroke.

After dipping into the gray ink mixture, touch the tip of the brush to the black ink to make a darker shading on the left side. This is like the last stroke we learned in Yong.
Try It! Practice the stroke for a section of bamboo stalk.

Dry-brush

Dry-brush adds flavors into your bamboo composition. Dip the brush into the ink mixture, and then remove most of the ink before painting.
This is how you should hold the brush when you paint joints. The joints divide the stalk. They should be added in darker ink than the stalk itself.

⚠️ Add the joints before the stalk is dry.

Please watch the demo of file name (CH5 & 6-Stalk & Joint) on your CD-ROM.

Proper width of joint is the stroke extending beyond the side of bamboo stalk as far as the arrows in this illustration. Long, Jean. Chinese ink painting: techniques in shades of black, London, Blandford Press, 1984, p. 26, 27

Correct joint

Curved in the wrong direction

The stroke runs back into the stalk

Too light and need to be bold

Droops down with no flick at all

**Principles of joint painting:**

1. Joints should not be equal in size.
2. Joints should not be too curved.
3. Joints should not be too large or too small.
4. The spaces between joints should not be too large.
With the tip of the brush pointing to the upper left, press down on the paper. Lift slightly, bring the stroke over to the right, press on the brush again, and then pause. Next, quickly pull the stroke toward the lower left. Make the stroke sharp and clean.

The length of the joint should be within the 2 arrows.

Try It! Practice the strokes for a joint.
Try It! Paint the joints for these bamboo stalks; remember the proper width of joint.
Branches are elongated versions of the bamboo stalks, but they are long, straight, and slim. Branches grow upward from the stalk, but the weight of the leaves bends them down at the tip. This is how you should hold your brush when you paint branches.

Please watch the demo of file name (CH7-Branches) on your CD-ROM.

For stems that branch to the left, paint from the tip to the stalk.

For stems that branch to the right, paint from the stalk to the tip.

Stems grow from alternate sides of the stalk.
Common mistakes in painting bamboo branches:

<table>
<thead>
<tr>
<th>Image 1</th>
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<tbody>
<tr>
<td>Do not make the strokes curve</td>
<td>Too many branches</td>
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**Principles of branches painting:**

1. There are both thick and thin branches growing from the main stalks.
2. Thick branches grow from the joints and are a smaller version of the main bamboo stalk.
3. Branches grow alternately from the joints of the stalks.
4. At about the 5th joint above the soil, the branches and leaves begin to grow.
Try It! Practice the strokes for branches. For stems that branch to the left, paint from the tip to the stems. Painting branches are like painting small stalks; remember to twist at the end.
Try It! Practice the strokes for branch. For stems that branch to the right, paint from the stems to the tip. Painting branches are like painting small stalks; remember to twist at the end.
Try It!  Practice the strokes for branches.  Stems grow from alternate sides of the stalk. Remember, from the left, start away from the stalks; from the right, start at the base of the stalk.
The leaves are always the last part of the bamboo plant to be painted. Hold the brush with the tip pointing to the top of the paper. Lay the entire brush down on the paper. Twist the handle slightly to create a blunt end. Point the tip of the brush straight towards you, then gradually lift the brush until only the tip of the brush is still touching the paper. Pause, and then quickly flick the tip.

The shape of each bamboo leaf is distinct. Practice each individual leaf separately until you can produce the accurate form. Then practice painting them in clusters. Pay attention to the use of different ink tones. *Book of the Bamboo p. 159*

1 leaf

Hold the brush with the tip pointing to the top of the paper.

Twist the handle slightly to the left and then to the right to make a blunt start, then brush the tip of the brush straight toward you, gradually lift the brush until only the tip of the brush is still touching the paper. Pause and then flick the tip of the brush up off of the paper to end with a point.

2 leaves

Leaves can be painted pointing upwards or hanging down.

Usually small groups tend to have all of the leaves painted in the same direction.

Please watch the demo of file name (CH8-2.5 Leaves) on your CD-ROM.
Principles of bamboo leaves painting:

1. The brush needs to be saturated with ink.
2. The brush stroke should move easily and quickly.
3. Do not tangle the leaves.
4. Do not place the leaves all to one side.
5. Allow one group of leaves to dry before painting others on top of them.
6. At about the 5th joint above the soil, the branches and leaves begin to grow.

Please watch the demo of file name (CH8-Leaves Composition-1, 2, 3) on your CD-ROM.
Common mistakes when painting bamboo leaves:

**42-1**
- The blunt end is too triangular.
- Too much pressure at the beginning, and the brush was lifted too quickly.
- The end of the leaf split too much.
- This leaf is too short and fat.
- This leaf is too long and thin.

**42-2**
- Don't curve the leaves.
- Don't mix large and small leaves in the same grouping.
- Don't touch the head of each leaf together.
- Don't separate the head of each leaf.
Try It! Practice the strokes for 1 leaf. Hold the brush with the tip pointing to the top of the paper. Twist the handle slightly to the left and then to the right to make a blunt start, then brush the tip of the brush straight toward you, gradually lift the brush until only the tip of the brush is still touching the paper. Pause and then flick the tip of the brush up off of the paper to end with a point.
Try It! Practice the strokes of 2 leaves.
Try It! Practice the strokes of 3 leaves. Paint the first stroke pointing to the lower left. The second stroke should touch the first and it should be pointing straight down. The third stroke should not touch the others and it should point to the lower right.
Try It! Practice the strokes of 5 leaves. Add two shorter and slimmer leaves on the left and right side.
Try It! Practice the strokes of 5 leaves.
Try It!

Practice the following leaf arrangements.
Try It!

Practice the following leaf arrangements.
Try It!

Practice the following leaf arrangements.
Try It!

Practice the following leaf arrangements.
Try It!

Practice the following leaf arrangements.
Try It!

Practice the following leaf arrangements.
Composition

When composing a Chinese ink painting, keep in mind the relationship between the host and the guest, as indicated in chapter one. The guest should never dominate the host, and the host should be closer to the center of the painting, but not right in the middle of it. In addition, the bamboo should not be in the middle of the painting, as this would make the bamboo the dominant feature of the painting, something that would not make for a very humble painting. Let’s take a look at the steps of how to paint bamboo in the sun, and then we’ll review the four main parts of bamboo painting:

1. The steps of painting bamboo are:
   - stalk
   - joints
   - branches
   - leaves

2. The branches grow from the joints, and they do not have the same length.

3. The branches and the leaves should both be abundant above the mid-length of the stalk. Close to the base of the stalk there are broken branches, old leaves, or leafless twigs.

4. Lighter ink is used for new leaves as well as for leaves in the back. Darker ink is used for old leaves, as well as for leaves in the front. Book of the Bamboo p. 161
A bamboo stalk is very upright. This is how you should hold the brush to make a straight, firm stalk. Hold the brush at an angle of 45 degrees to the paper. Press, and then move your entire arm upwards or downwards by bending at the elbow.

⚠️ Do not use wrist movements; it will make the stalk curve.

Shading

The stroke of the bamboo stalk is also called the side brushstroke. You can see the left side of this stalk is darker than the right side. That is the shading technique. To make this effect, first, dip the brush into the gray ink mixture, then touch the tip of the brush to the black ink to make a darker shading on the left side.

Dry-brush

Dry-brush adds flavor to your bamboo composition. Dip the brush into the ink mixture and then remove most of the ink before painting.
Joint

This is how you should hold the brush when you paint joints. The joints divide the stalk. They should be added in darker ink than the stalk itself.

⚠ Add the joints before the stalk is dry.

With the tip of the brush pointing to the upper left, press down on the paper. Lift slightly, bring the stroke over to the right, press on the brush again, and then pause. Next, quickly pull the stroke toward the lower left. Make the stroke sharp and clean.

The length of the joint should be within the 2 arrows.
Branches

Branches are elongated versions of the bamboo stalks, but they are long, straight, and slim. Branches grow upward from the stalk, but the weight of the leaves bends them down at the tip. This is how you should hold your brush when you paint branches.

For stems that branch to the left, paint from the tip to the stalk.

For stems that branch to the right, paint from the stalk to the tip.

Stems grow from alternate sides of the stalk.
Leaves

The leaves are always the last part of the bamboo plant to be painted. Hold the brush with the tip pointing to the top of the paper. Lay the entire brush down on the paper. Twist the handle slightly to create a blunt end. Point the tip of the brush straight towards you, then gradually lift the brush until only the tip of the brush is still touching the paper. Pause, and then quickly flick the tip. The shape of each bamboo leaf is distinct. Practice each individual leaf separately until you can produce the accurate form. Then practice painting them in clusters. Pay attention to the use of different ink tones. *Book of the Bamboo p. 159*

1 leaf

Hold the brush with the tip pointing to the top of the paper. Twist the handle slightly to the left and then to the right to make a blunt start, then brush the tip of the brush straight toward you, gradually lift the brush until only the tip of the brush is still touching the paper. Pause and then flick the tip of the brush up off of the paper to end with a point.

2 leaves

Leaves can be painted pointing upwards or hanging down. Usually small groups tend to have all of the leaves painted in the same direction.

3 leaves

Paint the first stroke pointing to the lower left. The second stroke should touch the first and it should be pointing straight down. The third stroke should not touch the others and it should point to the lower right.

5 leaves

Add two shorter and slimmer leaves on the left and right side
Common Mistakes

Not enough ink.
Pressed the brush too hard
Too much twist
Not enough twist

Correct joint
Curved in the wrong direction
The stroke runs back into the stalk
Too light and needs to be bold
Droops down with no flick at all

Do not make the strokes curve
Too many branches
Common mistakes when painting bamboo leaves:

<table>
<thead>
<tr>
<th>Description</th>
<th>Image</th>
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<tbody>
<tr>
<td>The blunt end is too triangular.</td>
<td>![Image of a blunt end]</td>
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<tr>
<td>Too much pressure at the beginning, and the brush was lifted too quickly.</td>
<td>![Image showing too much pressure]</td>
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<tr>
<td>The end of the leaf split too much</td>
<td>![Image showing a split leaf]</td>
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<tr>
<td>This leaf is too short and fat.</td>
<td>![Image of a short and fat leaf]</td>
</tr>
<tr>
<td>This leaf is too long and thin.</td>
<td>![Image of a long and thin leaf]</td>
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<tr>
<td>Don't curve the leaves.</td>
<td>![Image showing curved leaves]</td>
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<tr>
<td>Don't mix large and small leaves in the same grouping.</td>
<td>![Image showing mixed leaves]</td>
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<td>Don't touch the head of each leaf together.</td>
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<tr>
<td>Don't separate the head of each leaf.</td>
<td>![Image showing separated head]</td>
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Bamboo Painting Principles:

**Stalk**

1. Leave space between the stalks for the joints.
2. Make the stalks different in length.
3. Make the stalks in the foreground in dark tones
4. Make the stalks in the back in light tones

⚠️ Avoid stalks that appear withered, swollen, or too dark in tone.

**Joint (節)**

1. Joints should not be equal in size.
2. Joints should not be too curved.
3. Joints should not be too large or too small.
4. The spaces between joints should not be too large.

**Branches**

1. There are both thick and thin branches growing from the main stalks.
2. Thick branches grow from the joints and are a smaller version of the main bamboo stalk.
3. Branches grow alternately from the joints of the stalks.
4. At about the 5th joint above the soil, the branches and leaves begin to grow.

**Leaves**

1. The brush needs to be saturated with ink.
2. The brush stroke should move easily and quickly.
3. Do not tangle the leaves.
4. Do not place the leaves all to one side.
5. Allow one group of leaves to dry before painting others on top of them.
6. At about the 5th joint above the soil, the branches and leaves begin to grow.
7. Leaves are like tear-drops, or icicles—some are long, some are short, some are fat, some are skinny, some are dark, and some are light. They all balance one another. The key is to paint the darker, thicker leaves on the main stalk, while the smaller, paler leaves should be on the supporting stalk.
9. Too stiff/straight a stroke will make the bamboo look unyielding and not pliable.
10. You should place the leaves on an uneven plane. Do not place leaves side by side.
Try It!

Compose your own bamboo painting by following the four instructions below:

1. Be aware of the amount of moisture in your brush—you do not want too much or too little.
   You do not want it to be too wet or too dry! You’ll know!

2. Make a preliminary stroke or two on the paper, either horizontally or vertically!

3. How fast is your stroke? That’s strictly up to you! You control the amount of moisture in your brush, the degree of pressure that you exert on it, as well as the “speed” of your brush stroke. All of this may vary a great deal! But a middle ground is the best—neither too fast nor too slow! If your stroke is too fast you may lose control. If it is too slow, your stroke may bleed and your hesitation will show. Don’t hesitate. Be bold, but not reckless. Remember—neither too fast nor too slow!

4. Follow the following video demos. Try to imitate them the best that you can.

Please watch the following demos on your CD-ROM: (CH9- Bamboo Composition Demo 1), (CH9- Bamboo Composition Demo 2-1), and (CH9- Bamboo Composition Demo 2-2).
Bibliography

_Bamboo, the Gentleman Scholar_ from www.moifa.com/bamboo.htm.


_Chinese Bamboo Painting_ from ivizlab.sfu.ca/arya/Gallery/Bamboo.htm


_Introduction to Chinese Brush Painting_ from www.moifa.com/intro_brush_painting.htm


### Illustration Sources

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Appendix B

Post-Test Questions
Post-Test Questions

1. What does bamboo symbolize? What makes it a favorite subject for many Chinese brush painters?

__________________________________________________________________________
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2. What kinds of goods are made of bamboo?

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4. What are “Four Gentlemen” in Chinese painting? And why?

__________________________________________________________________________
__________________________________________________________________________
__________________________________________________________________________

5. For how long has traditional Chinese painting developed?

__________________________________________________________________________
__________________________________________________________________________
6. What are the three main subjects of Chinese painting?

7. What is Yin and Yang?

8. What are the “The Four Treasures of the Room of Literature”?

9. What are the reasons for symbol usage in Chinese painting?

10. What do you pronounce this word?

11. Match:

   Sunny        windy        rainy
Please rate this workshop and instructional material in the following areas:

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<th>Very Good</th>
<th>Good</th>
<th>Fair</th>
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<td>Each chapter is laid out in a way that makes it easy to grasp key concepts.</td>
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<td>The course is interesting.</td>
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<td>Graphics, maps, charts, and pictures are used to enhance the content.</td>
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<td>The content covers the right amount of material.</td>
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<td>Overall, how would you rate this textbook?</td>
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Other comments:

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Appendix C

Letter of Authorization
Letter of Authorization

To the BYU Instructional Psychology and Technology Department,

I approve of Jo-Lan Shu (Noah)'s use of the video clips that show me demonstrating the way of bamboo painting. She can also edit them in any way that will best suit her project.

Name: Henderson H. Shu

Phone: 00886 02 22628244

Address: #8, 3F 176, No. Chien Kang Rd., Pei Chi (Hsin Chou) City, Taiwan 30022

M/D/YYYY: 11/26/2005
Appendix D

Chronology of Chinese Dynastic Periods
• Neolithic Cultures (5900-1700 BC)
  o Cishan-Peiligang (5900-5100)
  o BeiXin (5400-4500)
  o Hemudu (5000-4800)
  o Yangshao
    • Banpo (4800-4200)
    • Majiayao (3300-2000)
    • Banshan (2700-2400)
    • Machang (2400-2000)
  o Majiabing (4750-3900)
  o Dawenkou (4500-2300)
  o Shilingxia (4000-3500)
  o Daxi (4000-3300)
  o Miaoqidou (3900-3500)
  o Songze (3900-2700)
  o Hongshan (3500-2200)
  o Qingwangzhai (3400-3000)
  o Henan Longshan (2800-1900)
  o Qujialing (2700-2600)
  o Shixia (2700-2500)
  o Liangzhu (2700-2250)
  o Shandong Longshan (2300-1700)
  o Erlitou (1900-1600)
• Xia (2100-1600 BC)
• Shang (1600-1100 BC)
• Zhou (c. 11th cent. BC-256 BC)
  o Western Zhou (c. 11th cent. BC-771 BC)
  o Eastern Zhou (770 BC-256 BC)
    • Spring & Autumn Era (770-476 BC)
    • Warring States (475-221 BC)
• Qin (221-206 BC)
• Han (206 BC-AD 220)
  o Western Han (206 BC-AD 8)
  o Xin (9-23)
  o Eastern Han (25-220)
• Six Dynasties (220-589)
  o Three Kingdoms (220-265)
    • Wu (222-280)
    • Shu Han (221-263)
    • Wei (220-264)
  o Western Jin (265-317)
  o The Sixteen Kingdoms (304-439)
  o The Northern Dynasties (386-581)
    • Northern Wei (386-535)
    • Eastern Wei (534-550)
    • Western Wei (535-557)
    • Northern Qi (550-577)
- Northern Zhou (557-581)
  - The Southern Dynasties (386-581)
    - Eastern Jin (317-420)
    - Liu Song (420-479)
    - Southern Qi (479-502)
    - Liang (502-557)
    - 557-589
- Sui (581-618)
- Tang (618-906)
- Five Dynasties (907-960)
- Liao (907-1125)
- Song (960-1279)
  - Northern Song (960-1127)
  - Southern Song (1127-1279)
- Jin (1125-1234)
- Yuan (1279-1368)
- Ming (1368-1644)
  - Hongwu (1368-1398)
  - Jianwen (1399-1402)
  - Yongle (1403-1424)
  - Hongxi (1425)
  - Xuande (1426-1435)
  - Zhengtong (1436-1449)
  - Jingtai (1450-1456)
  - Tianshun (1457-1464)
  - Chenghua (1465-1487)
  - Hongzhi (1488-1505)
  - Zhengde (1506-1521)
  - Jiajing (1522-1566)
  - Longqing (1567-1572)
  - Wanli (1573-1620)
  - Taichang (1620)
  - Tianqi (1621-1627)
  - Chongzhen (1628-1644)
- Qing (1644–1912)
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  - Kangxi (1662-1722)
  - Yongzheng (1723-1735)
  - Qianlong (1736-1795)
  - Jiaqing (1796-1820)
  - Daoguang (1821-1850)
  - Xianfeng (1851-1861)
  - Tongzhi (1862-1874)
  - Guangxu (1875-1908)
  - Xiantong (1909-1911)
Appendix E

Assessment Rubric: The Chinese Bamboo Painting Rubric
The Chinese Bamboo Painting Rubric

Subject # ________________
This scale runs from 1 to 4, with 4 describing the highest level of agreement and 1 describing the lowest level of agreement. In this four-point rubric, 3 is the accepted level of performance.

Stalk 竹竿

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<td>Stalks in the foreground are in dark tones.</td>
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<td>Stalks in the back in light tones.</td>
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<td>Not enough ink.</td>
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<td>Pressed the brush too hard.</td>
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<td>Too much twist</td>
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<td>Not enough twist</td>
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Not enough ink. Pressed the brush too hard Too much twist Not enough twist

S ☺ minus S ☹ = S scores:
Joint 竹節

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<td>Joints have different sizes.</td>
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<td>Joints are not too curved</td>
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<td>Joints are not too large or too small</td>
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<td>The spaces between joints are not too large</td>
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<td>The stroke runs back into the stalk</td>
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<td>Too light and needs to be bold</td>
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<td>Droops down with no flick at all</td>
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Correct joint

Curved in the wrong direction

The stroke runs back into the stalk

Too light and needs to be bold

Droops down with no flick at all

J 🌟 minus J ✗ = J scores:
Branches

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<td>There are both thick and thin branches growing from the main stalks.</td>
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<td>Thick branches grow from the joints and are a smaller version of the main bamboo stalk.</td>
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<td>Branches grow alternately from the joints of the stalks.</td>
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<tr>
<td>At about the 5th joint above the soil, the branches and leaves begin to grow.</td>
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Refer to the pictures below.

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<td>Too many branches.</td>
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<table>
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<th></th>
<th>Do not make the strokes curve</th>
<th>Too many branches</th>
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<tr>
<td>B 😞 minus</td>
<td>B 😞 =</td>
<td>B scores:</td>
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### Leaves

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<tr>
<td>The brush is saturated with ink.</td>
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<tr>
<td>The brush stroke moves easily and quickly.</td>
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<tr>
<td>The leaves are not tangled.</td>
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<tr>
<td>The leaves are placed to both sides.</td>
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<tr>
<td>Allow one group of leaves to dry before painting others on top of them.</td>
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<tr>
<td>At about the 5th joint above the soil, the branches and leaves begin to grow.</td>
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<tr>
<td>Leaves are like tear-drops, or icicles—some are long, some are short, some are fat, some are skinny, some are dark, and some are light. They all balance one another.</td>
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<tr>
<td>Fast stroke, yet soft and pliable.</td>
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<td>The leaves are placed on an uneven plane.</td>
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<tr>
<td>Leaves are not placed side by side.</td>
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<td>The darker, thicker leaves are on the main stalk, while the smaller, paler leaves are on the supporting stalk.</td>
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Refer to the pictures below.

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<tr>
<td>The leaves are curved.</td>
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<td>Mix large and small leaves in the same grouping.</td>
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<td>Touch the head of each leaf together.</td>
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<tr>
<td>Separate the head of each leaf.</td>
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Don’t curve the leaves.  
Don’t mix large and small leaves in the same grouping.  
Don’t touch the head of each leaf together.  
Don’t separate the head of each leaf.
Refer to the pictures below.

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<td>Too much pressure at the beginning, and the brush was lifted too quickly.</td>
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<tr>
<td>The end of the leaf split too much</td>
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<td>This leaf is too short and fat.</td>
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<tr>
<td>This leaf is too long and thin.</td>
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The blunt end is too triangular.  
Too much pressure at the beginning, and the brush was lifted too quickly.  
The end of the leaf split too much.  
This leaf is too short and fat.  
This leaf is too long and thin.

L😊 minus L😊 = L scores:
Appendix F

Raw Scores of the Pre and Post Test Paintings
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Name: Stephen Simon
Age: 19
Major: Pre-Animation

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Rater # 2:
Name: Joanna Jao
Age: 24
Major: Graphic Design

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Age: 21  
Major: Art History & Business Management

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