THE ENAMELING ARTS IN KUWAITI PRE-SERVICE ART
TEACHER EDUCATION

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The purpose of this study was twofold: (1) to examine the knowledge, skills, and experiences in the enameling arts and the attitudes and perceptions of in-service \( n = 12 \) and pre-service Kuwaiti art teachers \( n = 170 \), art supervisors at the Ministry of Education (MOE) \( n = 3 \) and art education faculty members at the College of Basic Education (CBE) and Kuwait University (KU) \( n = 8 \) about what they believed pre-service art teachers should know and be able to do in order to teach the enameling arts, and (2) to use this information to inform and guide the development of a content outline for an enameling course for pre-service Kuwaiti art teachers that is educationally (how to perform enameling arts skills and how to teach what they know), practically (safety issues, workshop management, etc), and culturally (its relation to Islamic culture) suitable. Both quantitative and qualitative approaches were used.

Most of the respondents revealed limited knowledge and skills and modest experiences in the enameling arts. All interviewees in the study expressed positive perceptions and attitudes about the enameling arts. Most agreed that a revision to the current art education curriculum at the CBE was needed and made suggestions about how the curriculum should be revised. It was clear that there is a disconnection and miscommunication between the MOE and the CBE with regards to the information about enameling that should be covered and taught in the art education classes. All respondents
expressed support for the inclusion of a course in enameling in the art education
curriculum at the CBE. Because of the limited knowledge of the participants in the study,
they were not able to provide guidance in shaping the content for a course in the
enameling arts. The researcher had to rely on the literature review and his expertise as an
enameling artist to develop a content outline that was educationally, practically, and
culturally suitable for the pre-service Kuwaiti art teachers. Further study was
recommended in regard to curriculum issues, especially those related to the inclusion of
Islamic culture, and methods of delivering instruction in the enameling arts.
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CHAPTER 1
INTRODUCTION

The curriculum is the greenhouse where students will grow and develop to their fullest potential under the care of a wise and patient gardener. The plants that grow in the greenhouse are of every variety, but the gardener treats each according to its needs, so that each plant comes to flower. This universal blooming cannot be accomplished by leaving some plants unattended. All plants are nurtured with great solicitude, but no attempt is made to divert the inherent potential of the individual plant from its own metamorphosis or development to the whims and desires of the gardener.

_Herbert M. Kliebard_

Since 1912, education has been through several changes in the State of Kuwait. These changes have helped to reshape, improve, and advance the Kuwaiti educational system in many aspects. Detailed information about the history and culture of Kuwait, the history of the educational system in Kuwait, the history of the College of Basic Education (CBE), and the pre-service art teacher program are included in Appendix A. The teacher education program is considered one of the important components for advancing the educational system; therefore, it is an essential prerequisite to qualify teachers. These teacher preparation programs are expected to provide the necessary educational and cultural trainings for pre-service teachers. According to Al-Ahmad (1986), “Pre-service teacher preparation programme should be developed so as to take the following in account: a- Maturational needs of school learners; and b- Maintaining a balance between academic, professional & general (cultural) aspects” (p. 89).
In Kuwait, the CBE offers several exceptional educational programs consisting of art education, Arabic language, educational technology, electricity, home economics, interior design, Islamic education, kindergarten, librarianship and information science, mathematics, music education, physical education and sport, science, and social studies (College of Basic Education Manual [CBE], 2003/2004). In the CBE, the art education program plays a critical role, because it is the only art program in Kuwait that produces certified art teachers for the schools. Thus, it is important that the art teacher preparation program be of high quality, providing a variety of courses that will result in well qualified teachers. Day (1997) stated:

The field of art education, as an example, has experienced major changes in approaches to curriculum and instruction during the past twenty years. If art education programs are to prepare knowledgeable and competent practitioners and participants in the educational issues of the day, these programs must also be dynamic and current. Simply stated, art education preparation programs must change and improve in ways parallel to the changing issues and expectations of art education. (p. ix)

As a result, the graduates of the art teacher preparation program at the CBE should be equipped with the knowledge, skills, and positive attitudes that are required to meet the challenges, developments, and needs in the schools and art institutions.

In the CBE, the average period of study for achieving a bachelor’s degree in art education is four years or eight semesters. The art education program offers courses in art theory and practical art courses along with field training experiences. A student is
required to complete 130 credits successfully in order to graduate with a major in art education and a minor in interior design and be qualified to teach at the elementary, intermediate, and high school levels (College of Basic Education Manual, 2003/2004). These required credit hours are distributed as follows: 34 credits for art production, 2 credits for art history, 2 credits for art aesthetics and art criticism, 9 credits for school field-training, 2 credits for a seminar course, 31 credits for pedagogy and curriculum, 20 credits in interior design (minor), and 30 credits for general education college requirements and elective courses. After they graduate, the new art teachers can be successfully employed in the Ministry of Education (MOE). However, the majority of the CBE graduates face several problems due to the lack of knowledge and skills to teach certain content areas of the art curriculum. This occurs because the necessary courses are not included in the pre-service art education program (Al-Mass, 1999; Al-Muhanna, 1989; Al-Najar, 2001; Al-Sayegh, 1998; Alnajdi, 2001).

Hence, in-service art teachers may also have deficiencies in their preparation. As a consequence, they need opportunities to address them. They may go back to college and continue their education toward a bachelor’s degree in art education if they only have a diploma (two-year certificate after high school) in art education at the CBE or they may take advanced workshops at the (MOE) depending on availability. The non-availability of these advanced workshops creates serious problems for the in-service art teachers. Despite the fact that the pre-service art education program is preparing art teachers for the field of art education, there are several missing aspects.
Several studies recommend that the art education program in the College of Basic Education (CBE) should be reviewed and changed (Al-Muhanna, 1989; Al-Najar, 2001; Al-Sayegh, 1998; Alnajdi, 2001). Al-Sayegh (1998) stated that the pre-service art program needs to change and to include a course in Islamic geometric designs because the pre-service art teachers should know about teaching Islamic art and culture. Al-Sayegh (1998) noted that this course will allow the pre-service art teachers to know more about Islamic geometric designs in particular and increase their perceptions and appreciation about Islamic art in general. Al-Najar (2001) pointed out that weaknesses of the existing art education program are that it does not provide adequate training in studio art; requires irrelevant courses to elementary levels such as interior design, oil painting, wood-working, and metalsmithing; and does not provide adequate training in curricular issues in art education.

There are many missing aspects and a disconnection between the curriculum that the Kuwaiti Ministry of Education (MOE) requires the secondary art teachers to teach and what they are prepared to do as pre-service students. Al-Najar (2001) recommended that the art education objectives should be aligned between the Kuwaiti Ministry of Education and the College of Basic Education for better educational outcomes. The art education program prepares individuals to teach at the elementary, intermediate, and high school levels (College of Basic Education Manual, 2003/2004), but when they were employed or transferred by the MOE to the secondary school levels, they really struggle to teach certain areas such as studio art and encounter problems related to art curriculum
issues (Al-Najar, 2001). At present, many of the graduates from the pre-service art teacher program are not prepared to teach these classes.

An example of this disconnect is the enameling arts. Enameling is one of the required subjects that must be taught at the Kuwaiti secondary school level and provides a natural way to incorporate art historical and cultural values into the curriculum (Ministry of Education [MOE], 1990/1991). Yet, enameling is not taught in the art studio courses such as Metal I (AE 171) and Metal II (AE 371) that are taught in the pre-service art education program at the CBE and students do not gain the knowledge and skills in the enameling arts that are necessary for the art teacher to implement the curriculum required by the MOE. To initiate an enameling program in Kuwait, literature from the US - books, journal articles, research studies, curriculum theories, master’s theses, doctoral dissertations, and on-line resources - are used as a model due to the fact that little exists in the Kuwaiti literature regarding pre-service programs, the enameling arts, and curriculum designs.

The process of enameling is complex and involves knowledge of a number of processes and techniques as well as the skill to complete them. In considering what a secondary teacher needs to know and be able to do to teach enameling, it is important to examine the enameling arts and the wide-range of techniques that are used to create them.

Vitreous enamel is a combination of powdered glass and metallic colored oxides (Cere, 1975; Chaffers, 1869; Davenport, 1908; De Koningh, 1927; Matthews, 1984; Rose, 1917; Scribner, Welford, & Armstrong, 1877; Seeler, 1969; Untracht, 1957; Wiener, 1981). Enameling is a technique where a glass coat that is used for decoration or
protection is fused to a metal surface in a kiln (Bovin & Bovin, 1990; Ellis, 1997; Fairfield, 1978; Gentille, 1968; Knuth, 2000; McGrath, 2003). It consists of flint, soda or potash, lead oxide, and potassium hydroxide (Akre, 1983; Barsali, 1969; Bates, 1951; Benjamin, 1981-1988; De Koningh, 1927; Dutton, 1966; Matthews, 1984; Morton, 1970; Von Neumann, 1961). With regards to the enameling arts, there are a number of techniques that comprise this type of challenging art form that should be part of the curriculum at the College of Basic Education (CBE).

One of the common traditional enameling arts techniques is cloisonné, which is a celled enameling method in which narrow pieces of copper, gold, or silver wires or thin flat wires are soldered or fired with flux to be glued into the metal surface and then the cells or cloisons are filled with fired enamels (Akre, 1983; Bates, 1951; Benjamin, 1978, 1981-1988; Bovin & Bovin, 1990; Cere, 1975; Choate & De May, 1970; Cohen, 2002; Darty, 2004; King, 2001; Knuth, 2000; Matthews, 1984; McCreight, 2004; McGrath, 1995; McGrath, 2003; McGrath, 2005; Sanford, 1970; Untracht, 1957; Von Neumann, 1961; Wiener, 1981). Another common technique is champlevé, which is an inlayed enameling technique in which a low relief is cut into some places on a metal surface and filled with transparent and/or opaque enamels and fired (Akre, 1983; Bates, 1951; Benjamin, 1978, 1981-1988; Bovin & Bovin, 1990; Cere, 1975; Choate & De May, 1970; Cohen, 2002; Darty, 2004; King, 2001; Knuth, 2000; Matthews, 1984; McCreight, 2004; McGrath, 1995; McGrath, 2003; McGrath, 2005; Sanford, 1970; Untracht, 1957; Von Neumann, 1961; Wiener, 1981).
More complex and complicated techniques are plique-à-jour, which is a window enameling technique in which narrow strips of metal are shaped into cells without any metal in the background, and then the cells are filled with fired enamels like a stained glass (Akre, 1983; Bates, 1951; Benjamin, 1978, 1981-1988; Bovin & Bovin, 1990; Cere, 1975; Choate & De May, 1970; Cohen, 2002; Darty, 2004; King, 2001; Matthews, 1984; McCreight, 2004; McGrath, 1995; McGrath, 2003; McGrath, 2005; Sanford, 1970; Untracht, 1957; Von Neumann, 1961; Wiener, 1981). Another difficult technique is grisaille, which is a shades-of-gray enameling method in which the metal surface is covered with black or dark blue, and then painted with multiple layers of white enamels in order to achieve diverse tones of gray colors (Akre, 1983; Bates, 1951; Benjamin, 1978, 1981-1988; Bovin & Bovin, 1990; Cere, 1975; Choate & De May, 1970; Cohen, 2002; King, 2001; Matthews, 1984; McCreight, 2004; McGrath, 1995; McGrath, 2003; McGrath, 2005; Untracht, 1957; Von Neumann, 1961).

A different widespread traditional technique in enameling is known as Limoges. It is a painted enameling method in which fired enamels are applied as paintings (Akre, 1983; Bates, 1951; Benjamin, 1978, 1981-1988; Bovin & Bovin, 1990; Cere, 1975; Choate & De May, 1970; Cohen, 2002; Matthews, 1984; McGrath, 2005 Sanford, 1970; Untracht, 1957; Von Neumann, 1961; Wiener, 1981). Ronde bosse is another recognized traditional enameling technique. It is a relief-embossed or sculptured enameling method in which enameling is applied on a three dimensional surface like sculpture or relief embossed metal which is completely coated with enamels (Akre, 1983; Benjamin, 1981-1988; McGrath, 1995). Another complex enameling technique is known as basse-taille. It
is an enameling technique in which a low relief design on the metal surface is totally covered with the transparent enamels (Akre, 1983; Bates, 1951; Benjamin, 1978, 1981-1988; Bovin & Bovin, 1990; Cere, 1975; Choate & De May, 1970; Darty, 2004; King, 2001; Knuth, 2000; Matthews, 1984; McCreight, 2004; McGrath, 1995; Sanford, 1970; Untracht, 1957; Von Neumann, 1961; Wiener, 1981).

Contemporary enameling techniques have been developed to provide different ways of treating metal surfaces with enamels; these include techniques such as en résille, camaieu, en crusté, guilloche-moiré, stenciling, ginbari foil, impasto, counter enameling, sgraffito, multi enamel types, under-glaze, over-glaze, metallic glaze, raku, swirling and scrolling, crackle enamel, silkscreen, foil and leaf, and sifting (Akre, 1983; Bates, 1951; Bovin & Bovin, 1990; Cere, 1975; Choate & De May, 1970; Cohen, 2002; Darty, 2004; King, 2001; Matthews, 1984; McCreight, 2004; McGrath, 1995, 2003, 2005; Sanford, 1970; Untracht, 1957; Von Neumann, 1961; Wiener, 1981). This wide array of enameling techniques can include basic, intermediate, and advanced processes.

Enameling art as a discipline consists of a rich art history and a wide range of technical skills that can create an enjoyable and enthusiastic learning environment (Bates, 1951, 1967; Darty, 2004). More detailed information about enameling techniques and the history of the enameling arts is included in Appendix B. Through the study of enameling, students not only gain art knowledge and art skills, but also they can learn about its relation to their Islamic culture and art (Bloom & Blair, 1997; Jenkins, 1983; Keene & Kaoukji, 2001; Qadome, 1987). The knowledge and skills required to do enameling as well as the historical and cultural contexts associated with it are a much-needed addition
to the pre-service teacher preparation program in Kuwait. The critical issue is to
determine which of these techniques public school Kuwaiti art teachers need to know
about and be able to do in order to meet the Ministry of Education’s (MOE) curriculum
requirements.

This study addressed this inconsistency of the pre-service teacher requirements
and the MOE curriculum requirements by examining the attitudes and perceptions of pre-
service and in-service art teachers towards enameling and what they believe they need to
know and be able to do in order to teach the enameling arts effectively. The information
gathered through this study will guide the researcher in the development of a content
outline for an enameling curriculum for the pre-service teacher education curriculum.

Eisner’s (1979, 1985, 2002) and Posner’s (2004) curricula theories form the
conceptual frameworks for this study. Social adaptation and social reconstruction
curriculum orientations are some of Eisner’s curricular theories (Eisner, 1979, 1985,
2002). The social adaptation curriculum and social reconstruction curriculum seek to
increase and develop the awareness of the person about the society in which they live and
learn from it (Eisner, 1979, 1985, 2002). He argues that schools should serve as a
representative of social change and it’s their responsibility to offer education that is
related to the students’ interests and society’s needs (Eisner & Vallance, 1974). From
Pinar’s point of view, a productive and informative educational context requires a
curriculum that includes themes and concepts of social reconstruction (1976, 2004,
2006). Similarly, Anderson and Milbrandt (2005) believe that social reconstruction
should be the base on which a rationale art education curriculum is developed.
Posner (2004) described a school curriculum as a set of content, standards, or objectives for what students should learn in the educational settings. Posner’s work is built upon the work of Tyler; he expanded Tyler’s four curriculum questions into twelve planning elements consisting of objectives, rationale or educational philosophy behind curriculum, content, characteristics of target audience, activities, materials, sequencing principles, schedule, teacher training and attitudes, evaluation, administrative structure, school facilities, and financial constraints, and other parts of the curriculum (Posner, 2004). Posner (2004) also prepared seven common concepts of curriculum consisting of scope and sequence, syllabus, content outline, standards, textbooks, course of study, and planned experiences. As the curriculum designer examines these points, it becomes apparent that they provide clear guidelines for creating any educational curriculum. Thus, this contextual framework assisted in designing a content outline for an enameling curriculum for the Kuwaiti art teachers based on the findings of the study.

Statement of the Problem

In Kuwait, there is a great “need for high-quality teacher education programs, which include and introduce innovative teacher models, strategies, or practices” (Al-Dawoud, 2001, p. 9) such as enameling art that builds upon the historical and cultural traditions in Islamic arts. At present, the Department of Art Education in the Kuwaiti College of Basic Education (CBE) does not offer any courses in enameling in the art education program, yet, the Ministry of Education (MOE) includes enameling in the curriculum that is given to secondary school teachers (Ministry of Education, 1990/1991). The problem posed in this study is to develop a content outline for an
enameling course that is educationally, culturally, and practically suitable to Kuwaiti pre-service and in-service art teachers based on their knowledge, skills, attitudes, and perceptions regarding the enameling arts. As these are unknown at this time, it is necessary to ascertain this information so that it can serve as a basis for developing a course content outline.

The Purpose of the Study

The purpose of this study was twofold: (1) to examine the knowledge, skills, and experiences in the enameling arts and the attitudes and perceptions of in-service and pre-service Kuwaiti art teachers, art supervisors at the Ministry of Education (MOE) and art education faculty members at the College of Basic education (CBE) and Kuwait University (KU) about what they believed pre-service art teachers should know and be able to do in order to teach the enameling arts, and (2) to use this information to inform and guide the development of a content outline for an enameling course for pre-service Kuwaiti art teachers that is educationally (how to perform enameling arts skills and how to teach what they know), practically (safety issues, workshop management, etc), and culturally (its relation to Islamic culture) suitable. Toward this end, the objectives of the study were as follows:

1. To ascertain the attitudes and perceptions of Kuwaiti pre-service and in-service art teachers regarding what Kuwaiti secondary school art teachers believe teachers should know and be able to do to teach the enameling arts.
2. To develop a content outline for a curriculum in the enameling arts for the pre-
service art teacher program at the CBE that is guided by the attitudes and
perceptions of in-service and pre-service Kuwaiti art teachers.

Research Questions

The specific research questions are:

1. What knowledge, skills, and experiences do pre-service Kuwaiti art teachers have
   regarding the enameling arts?

2. What are the attitudes and perceptions of pre-service Kuwaiti art teachers
   regarding what pre-service teachers should know and be able to do with regard to
teach the enameling arts?

3. What knowledge, skills, and experiences do in-service Kuwaiti art teachers have
   regarding enameling arts?

4. What are the attitudes and perceptions of in-service Kuwaiti art teachers regarding
   what pre-service teachers should know and be able to do with regard to teach the
   enameling arts?

5. What are the attitudes and perceptions of in-service Kuwaiti art teachers regarding
   the enameling arts in secondary public schools and College of Basic Education?

6. What knowledge, skills, and experiences do art education faculty members at the
   Kuwait University, art education faculty members at the College of Basic
   Education, and art education supervisors at the Ministry of Education have
   regarding enameling arts?
7. What are the attitudes and perceptions of art education faculty members at the Kuwait University, art education faculty members at the College of Basic Education, and art education supervisors at the Ministry of Education regarding what pre-service teachers should know and be able to do with regard to teach the enameling arts?

8. To what extent is there enameling art content in the art education documents at the Ministry of Education and at the College of Basic Education, as well as in the publications of the Dar al-Atahr al-Islamiyyah?

9. In what way can these attitudes, perceptions, understandings and documents inform the development of a meaningful curriculum for enameling in Kuwaiti pre-service art education?

Significance of the Study

In the College of Basic Education in the State of Kuwait, enameling courses are not taught for pre-service art teachers. However, the Kuwaiti Ministry of Education requires that the enameling arts be taught at the secondary level even though neither pre-service art teachers nor in-service art teachers in Kuwait receive instruction in the enameling arts as a part of their teacher preparation. No previous research regarding what teachers need to know and be able to teach about enameling art has been conducted and no pre-service art teacher curriculum in the enameling arts exists. Thus, this research study will develop a content outline for an enameling curriculum based upon the perceived needs of in-service and pre-service art teachers that can be used in the CBE as well in continuing education for in-service art teachers.
Limitations of the Study

This study had few, but significant, limitations. The lack of resources in the Kuwaiti literature regarding pre-service programs, the enameling arts, and curricula designs was considered a limitation of this study. The lack of existing Kuwaiti art in-service teachers who are capable to teach enameling arts was another limitation. If such individuals existed, they could have provided valuable information with regards to the enameling arts in the Kuwaiti educational institutions. Because the study was conducted in the State of Kuwait, the findings cannot be generalized to other countries and their art teacher preparation programs. Finally, this study is a snapshot of attitudes, and perceptions towards enameling arts at a given point in time.

Summary

This chapter presented an introduction, statement of the problem, the purpose of the study, research questions, significance of the study, and limitations. It also presented a brief background about the present conditions at the art education department at the College of Basic Education in the State of Kuwait, types of enameling arts, and conceptual frameworks used in this study. The next chapter will discuss the review of the related literature.
CHAPTER 2
REVIEW OF THE LITERATURE

The literature reviewed for this study was related to the theoretical framework of the study; design art education curricula; enameling in art education; skills; knowledge; attitudes; pre-service teacher preparation, training and professional development.

Theoretical Framework

This study was guided by the work of Eisner and Posner in curriculum theory. Eisner (1979, 1985, 2002) highlighted several types of general and art curricula consisting of the development of a cognitive process curriculum, an academic rationalism curriculum, a studio-oriented program, humanities or related art approach, social adaptation, and social reconstruction curriculum. Two of Eisner’s curricular frameworks that should be used and implemented in the art education program at the College of Basic Education (CBE) are called the social adaptation curriculum and the social reconstruction curriculum.

These curriculum orientations argue that schools are “an agency of social change” (Eisner & Vallance, 1974, p. 135) and they set out “to serve the interests of the society” (Eisner, 1985, p. 74). It should be noted that the social adaptation and/or social reconstruction curriculum express “societal needs over individual needs” (Eisner & Vallance, 1974, p. 10) and they seek to increase and develop the awareness of the person about the society in which they live and from which they learn (Eisner & Vallance, 1974;
Eisner, 1979, 1985, 2002). According to these theories, the schools should offer an education that is related to the student’s interests and society’s needs (Eisner & Vallance, 1974). Social adaptation curriculum and social reconstruction curriculum types were very critical for this proposed study because it allows collecting information from educated Kuwaitis who are a part of society, and then apply it in a curriculum that fits the needs of the Kuwaiti cultural and educational environments. As previously noted, the school serves as an agent of social change; thus, it is the schools’ duty to offer education that is related to the student’s interests and society’s needs (Eisner, 1979, 1985, 2002; Eisner & Vallance, 1974).

However, there are differences between the role of the social adaptation and the social reconstruction curriculum orientations. Eisner (1979, 1985) stated that the social adaptation orientation aims to help students conform to existing social values, help students to take their place in the existing social order, and maintain the status quo (Eisner, 1985), whereas the social reconstruction orientation helps students to increase levels of awareness of the society’s problems and to motivate pupils to do something about societal problems (Eisner, 1979, 1985, 2002). Social reconstruction orientation usually spotlights sensitive issues of “what some writers in the social studies have called the closed areas of society” (Eisner, 1985, p. 76) such as religious values, sexual preferences, political corruption, and racial prejudice (Eisner, 1979, 1985) or war, poverty, pollution, global warming, crime, inadequate health care, illiteracy, unemployment, worker exploitation, population explosion, and the energy shortage (Schiro, 2007, 2008). Many curriculum theorists, educators, and art educators have

For example, Anderson and Milbrandt (2005) pointed out that an authentic art education curriculum should be based on social reconstruction. They stated that “The purpose of art education for life is, therefore, to help students understand something about themselves and others through art and move toward the (social reconstruction) goal of making the world a better place for everyone” (p. 18). As noted earlier, the notion of the social reconstruction theory is to increase the individual’s awareness of the society’s problems and find solutions to these kinds of controversial issues by collaborative efforts. In the same manner, Taylor, Carpenter, Ballengee-Morris, and Sessions (2006) argued that such reform in education and particularly in art education would benefit balancing the needs of the society as well as its components due to cultural diversity.

Similarly, Pinar (1976, 2004, 2006) emphasized that the social reconstruction theory should be considered while designing a curriculum in order to enrich the educational milieus. He stressed that curriculum designers must link students to their culture because they construct their cultural background and experiences from the society. Thus, Pinar (2004) envisioned that the curriculum designer should consider the
nature of the society and its relation to the curriculum. Besides, he noted that society and the nature of its components play a significant role in designing a curriculum.

Posner’s (2004) book, *Analyzing the Curriculum*, plays a critical role in order to examine educational programs. In addition, Posner and Rudnitsky’s book, *Course Design: A Guide to Curriculum Development for Teachers* also helps to design an outline course in diverse disciplines (1982, 1986). From examining these two significant books of Posner, it appears that they assist to examine and design educational courses and programs. In fact, Posner’s work is built upon the work of Tyler (1949) who stated that the curriculum designer should consider four questions: a) What educational purposes should the school seeks to attain? b) What educational experiences can be provided that are likely to attain these purposes? c) How can these experiences be effectively organized? and d) How can we determine whether these purposes are being attained? Posner (2004) extended Tyler’s four questions into twelve planning elements:

1. Objectives: What knowledge, skills, and attitudes should students acquire?
2. Rationale or educational philosophy behind curriculum: Why should they learn this? What is the value of this?
3. Content: What content, i.e., what topics, concepts, skills, etc., should be covered?
4. What are the characteristics of the target audience?
5. Activities: What should they do?
6. Materials: What recourses will they need?
7. Sequencing principles: In what order should this be done?
8. Schedule: How long will each part take?

9. Teacher training and attitudes: What do the teachers need to know, be able to do, and be committed to?

10. Evaluation: How will success be determined? What will count as success?

11. Administrative structure, school facilities, and financial constraints: How will it be implemented in a school?

12. Other parts of curriculum: How will it relate to other subjects? (p. 40)

As one examines these questions, it becomes apparent that, they provide the curriculum designer with a clear outline to construct a curriculum. Posner (2004) also set out seven common concepts of curriculum:

1. Scope and sequence: The description of curriculum as a matrix of objectives assigned to successive grade levels (i.e., sequence) and grouped according to a common theme (i.e., scope).

2. Syllabus: Plan for an entire course, typically including rationale, topics, recourses, and evaluation.

3. Content outline: A list of topics covered organized in outline form.

4. Standards: A list of knowledge and skills required by all students upon completion.

5. Textbooks: Instructional materials used as the guide for classroom instruction.

6. Course of study: A series of courses that the student must complete.

7. Planned experiences: All experiences students have that are planned by the school, whether academic, athletic, emotional, or social. (p. 2)
In gathering information and proposing a curriculum outline in enameling arts for pre-service art teachers at Kuwait’s College of Basic Education (CBE), Eisner’s curriculum theories and Posner’s twelve planning elements and seven common concepts will be carefully examined and used. They will guide the collection of information from the pre-service and in-service art teachers as well as the material gathered from historical enameling arts and Kuwaiti educational resources. They will also play a critical role while establishing a content outline for enameling curriculum because it is important to have a well designed and detailed curriculum (Apple, 1990; Posner, 2004; Posner & Rudnitsky, 1982, 1986).

Designing Art Education Curriculum

Curriculum is a valuable framework in education. A curriculum is identified differently based on many educators’ points of view and interpretations. This means that there is no specified, accurate, and unified curriculum meaning (Eisner, 2002; Posner, 2004; Posner & Rudnitsky, 1982, 1986; Walker, 1990) because “Different definitions lead to different conclusions about who should prescribe and control various aspects of education” (Posner, 2004, p. 12). Eisner (2002), for example, defined curriculum as a “body of materials that is planned in advance of classroom use and that is designed to help students learn some content, acquire some skills, develop some beliefs, or have some valued type of experience” (p. 34). Pinar et al. (2000) described a curriculum as “an extraordinary complicated conversation” (p. 848). However, other researchers have envisioned curriculum differently.
Efland (1996), for instance, suggested that a curriculum “serves the whole human person as an economic, social, cultural, and spiritual being” (p. 55); whereas Schubert (1986) went on further to say that the word curriculum is a “metaphor for a journey of learning and growth” (p. 6). Thus, curriculum can be defined as a sequence of designed experiences that a learner has/should have in all areas of the society. It is clear that curriculum comprises many major components.


Curriculum theories are clearly designed for better educational outcomes. A number of researchers have identified curriculum theory from different viewpoints. For example, Walker (1990) defined curriculum theory as “a coherent and systematic body of ideas used to give meaning to curriculum phenomena and problems to guide people in deciding on appropriate, justifiable actions” (p. 133). Hewitt (2006) also identified curriculum theory as “a set of propositions, observations, facts, beliefs, policies, or
procedures proposed or followed as a basis for curriculum action” (p. 133), and Pinar (2004) went on further to say that curriculum theory is “the interdisciplinary study of educational experience” (p. 2). These curricula theories consist of specific features. As Walker (1990) stated, curriculum theory is associated with validity, serviceability, power, and morality, while Hewitt (2006) argued that curriculum theory features include logical explanation, power of theory, a plan of curriculum, and considering commonplace events which guide practice.

In designing a curriculum, how well it is designed, the educational experiences for the learners and the vital role of society can not be ignored. Johnson (1969) identified the three visions of curriculum design as follows: (a) An arrangement of selected and ordered learning outcomes intended to be achieved through instruction, (b) An arrangement of selected and ordered learning experiences to be provided in an instructional situation, and (c) A scheme for planning and providing learning experiences. It is logical that curricula are designed to achieve certain educational goals and promote the student learning. To do this, curriculum designers must address precise outlines and instructions in order to accomplish the desired educational outcomes.

As noted earlier, Posner (2004) described a school curriculum as a set of content, standards, or objectives for what students should learn in educational settings. Posner’s work built upon the work of Tyler; he expanded Tyler’s four curriculum questions into twelve planning elements consisting of objectives, rationale or educational philosophy behind curriculum, content, characteristics of target audience, activities, materials, sequencing principles, schedule, teacher training and attitudes, evaluation, administrative
structure, school facilities, and financial constraints, and other parts of the curriculum (Posner, 2004). Posner also included seven common concepts of curriculum consisting of scope and sequence, syllabus, content outline, standards, textbooks, course of study, and planned experiences. As the curriculum designer examines these points, it becomes apparent that they provide clear guidelines for creating any educational curriculum. In the field of art education, for instance, the curricula usually contains a certain body of standards, skills, knowledge, experiences, and activities that are set for better human development. Dunn (1995) illustrated five critical areas of an art curriculum including:

(a) identifying what children should learn, (b) selecting and classifying appropriate concepts and programmatic content, (c) incorporating suitable instructional technologies that allow the body of knowledge to be effectively and efficiently transmitted to students who may possess a variety of learning styles, (d) accounting for gender differences and diversity in cultural, social, and ethical backgrounds, and (e) devising valid and appropriate ways to evaluate the outcomes of the educational process. (p. 15)

These five basic elements with Posner’s seven common concepts of curriculum outlines aid the curriculum planner to articulate art education curriculum.

*Curriculum Types of General Education and Art Education*

There are several kinds of curricula in general education and art education. Eisner (1979, 1985) in *The Educational Imagination: On the Design and Evaluation of School Programs* mentioned five basic orientations to the curriculum. He discussed them as the following:
1- Development of cognitive process curriculum highlights “the process rather than content” (Dunn, 1995, p. 9). Eisner and Vallance (1974) noted that its main focal point “…with the refinement of intellectual operations” (p. 5).

This curriculum requires creating a “problematic situation” (Eisner, 1979, p. 54). In other words, it requires a problem-based-learning in order to emphasize the ability to interpret, analyze, connect, and predict information.

2- The academic rationalism curriculum’s structure seeks “to foster the intellectual growth of the student in those subject matters most worthy of study” (Eisner, 1979, p. 54). This kind of curriculum focuses “on examining what is true, what is good, and what is beautiful” (Dunn, 1995, p. 9).

3- The personal relevance curriculum is designed based on the students’ interests and it’s the school’s responsibility and teachers to develop this program. This form of curriculum promotes the student-centered approach, but some critics’ main concern about whether or not the students are mature enough to participate in designing this kind of core curriculum (Dunn, 1995).

4- The social adaptation or social reconstruction curriculum argues that schools are set “to serve the interest of the society” (Eisner, 1979, p. 62). As previously mentioned, the social reconstruction curriculum seeks to increase and develop the awareness of the person about the society that they live in and learn from (Eisner, 1979). In this theory, school serves as an agent of social change, and thus, it’s the school’s duty to offer education that is related to the student’s interests and society needs (Eisner &
Vallance, 1974). This curriculum design is known as societal-centered curriculum (Ellis, 2004; Klein, 1986).

5- The curriculum as technology plans “…to operationalize through statements that are referenced to observable behavior” (Dunn, 1995, p. 10). This curriculum model is characterized by “highly specific details, sequential operations, and behaviorally oriented” (Dunn, 1995, p. 10), and it focuses on process “…with developing a technology of instruction” (Eisner & Vallance, 1974). Additionally, Dunn (1995) added another form of the curriculum, which is called the amalgamation curriculum. It is designed based on a combination of all or some of the Eisner’s five basic forms of the curriculum (Dunn, 1995). This curriculum searches to choose the best orientation that fits with the philosophical approach of the curriculum (Dunn, 1995). It should be noted that all of the above curriculum types can be used in the field of art education.

One of the important models of art curriculum is known as discipline-based art education (DBAE). The root of DBAE goes back when the trends for reforming the art education curriculum began in the sixties. In 1960, Bruner published The Process of Education, which played an important part in American education. Bruner (1960) stated that curriculum is “the structure of the discipline,” and “the dominant view among men…engaged in preparing and teaching new curricula… lies in giving students an understanding of the fundamental structure of whatever subjects we choose to teach” (p. 11). At that time, Manuel Barkan started to think about changing the art education curriculum by carefully examining Bruner’s thoughts. Efland (1987) said that “Bruner’s ideas helped change the intellectual climate within art education, providing a new sense
of direction” (p. 63). Thus, Manuel Barkan interpreted and analyzed Bruner’s ideas, and he argued about changing the structure of art education curriculum when he discussed the important role of art education as disciplines. Barkan (1962) suggested a transition in art education to change the concepts of curriculum content and teaching. Furthermore, in 1966, he stated the major changes of the goals, contents, and methods for teaching art which should be based on philosophical, historical, and empirical research. In the same year, Barkan participated in a seminar in Pennsylvania, where he suggested curriculum reform (Wygant, 1993).

In the late sixties, the elementary art education curriculum changed based on cognitive learning (Wygant, 1993). The National Art Education Association (NAEA) confirmed that learning objectives are based on Bloom’s categories such as cognitive (aware, recognize, understand, fact, and judgment), affective (sensitivity, appreciation, respect, interest, and pleasure), and psychomotor (skills or be able to do) (Wygant, 1993). More importantly, the National Visual Arts Standards emphasized that every student “should know and be able to do” in the visual arts (NAEA, 1994, p. 14). The NAEA offered curriculum content guidelines for an art programs at school (as cited in Ellena, 1973). These guidelines were cited in the book, *Curriculum Handbook for School Executives*, as the following:

I. Art experiences are an essential part of schools’ programs of education.

II. All children and youth must be afforded a carefully planned program in art from kindergarten through high school.

III. Such a program should be developmental in character.
IV. To provide such a program, it is necessary to have well prepared personnel, adequate curriculum content, and sufficient time.

V. Physical facilities, equipment, and materials should be available in sufficient quality and quantity so that the art personnel can provide art experiences that will result in the full development of the potentialities of each individual. (Ellena, 1973, p. 34)

In 1982, the Getty Center for Education in the Arts published *Beyond Creating: The Place for Art in America’s Schools*. This publication advocated an exceptional and high-quality art education program which consists of art production, art, history, art criticism, and aesthetic. It should be noted that most of these components were discussed in the seminar in art education for research and curriculum development at The Pennsylvania State University in 1966. Mattil (1966) pointed out that in this seminar, the initial focus and concern was about the following five major problems areas: the philosophical, sociological, content, teaching-learning, and curriculum. Mattil (1966) emphasized that art history, art criticism, and art studio areas are considered to be the primary source of content for art education. In the mid eighties, the Getty Center for Education in the Arts proposed discipline-based art education (DBAE) and since that time “the interest in DBAE has grown rapidly” (Efland, 1990, p. 253). This movement continued into the 1990s and is still practiced by many art educators.

Another type of an art curriculum is called studio-oriented program which is mostly used in schools (Eisner, 1997). In this approach, students are encouraged to utilize their imagination in order to produce expressive artworks (Eisner, 1997). The next type
of the art curriculum is called creative design (Eisner, 1997). In this approach, students are challenged to work with a problem that fits two criteria (Eisner, 1997). Firstly, the problem has to be resolved and it is unambiguous. Secondly, the solution for the problem needs to have an aesthetic feature. The last orientation of an art curriculum focuses on “a humanities or related art approaches” (Eisner, 1997, p. 170). This program brings awareness to the students about how to use art in society, the artists’ statement about the world through their work of art, and the relation between their art content and society (Eisner, 1997).

The NAEA’s goals in Creating a Visual Arts Research Agenda Toward the 21st Century emphasized “curricular issues, including content; instructional philosophy, goals, aims, and objectives; teaching strategies, instructional and technological resources, and outcomes” (Zimmerman, 1994a, p. 39). Thus, the NAEA agenda noted that the content of the art curricula needs to be restructured and well-designed in order to meet student needs, interests, and improve the quality of instructions.

**Barriers and Solutions to Curriculum Planning**

Barriers and solutions related to curriculum building are critical in education. Due to the teachers’ responsibilities inside and outside the school, lack of time is regarded as the primary obstacle (Cay, 1966). First, a good way to solve this problem is to hire only teachers or curriculum experts for constructing school curriculum (Cay, 1966). Second, another way to solve this dilemma is to begin the work of curriculum development after the business hours of the school (Cay, 1966) or during staff development. Third, an additional way of overcoming this problem
can be achieved through attending advanced workshops and conferences for educating teachers about how to structure new curricula (Cay, 1966). Fourth, a final suggestion would be substituting the teacher with another teacher (Cay, 1966) or with the student-teacher during the field training so that the school teacher has many chances to visit and observe other schools in a neighboring community.

Another obstacle is the lack of instructional materials and financial resources. With enough funding, the required educational materials and supplies, research projects, and professional staff development contribute to facilitate constructing curricula (Cay, 1966). The last barrier is the lack of community interest and support (Cay, 1966). For instance, creating a cooperative working situation between teachers and the parents can increase the attitudes toward the change, enhance the society’s support, and increase alteration from traditional to modern curricula (Cay, 1966).

Enameling in Art Education

Enameling is not usually a favorite subject to teach at schools and universities. Unlike drawing, painting, and printmaking, not all the art education curricula require the study of enameling arts. The appearance of enameling in art education goes back to the twentieth century. By the mid-sixties, the contents of the US art curriculum changed with the emergence of new styles, concepts, methods, and forms (Wygant, 1993). In addition, lesson plans included drawing, painting, printmaking, photography, sculpture, design, graphic design, ceramic, glass, textile, jewelry and enameling, and art appreciation.
(Wygant, 1993). Despite the great popularity of enameling art history and its beneficial functions, it is seldom taught in the secondary school and college levels.

**Enameling Arts at the Secondary School and College Levels**

There are many research studies conducted regarding enameling arts in the schools and college levels. Perfetti (1968) in his masters’ thesis, *Development and Analysis of a Self-Instructional Program in the Techniques of Enameling*, examined developing an experimental self-instructional program for teaching the basic techniques of enameling, and to test this self-instructional program on an explanatory basis measuring student interest and achievement at the University of Tennessee. Ten participants volunteered for this study, and they were engaged to do manipulative tasks in order to create enameling artworks. Overall, the study found that a self-instructional program for teaching the basic techniques of enameling was effective which improved the students’ learning. Interestingly, it should be noted that participants were eager to learn about the art of enameling, and later on they exhibited their enameling artworks in the University Center Arts and Craft Center.

Schruhl (1979) in her masters’ thesis, *A Teachers’ Guide to Enameling on Metal*, discussed some enameling techniques, enameling’s historical background, enameling preparation and firing, using enameling in the art curriculum, and a series of lesson topics that can be taught in art classes. One thing should be noted from examining this thesis is that the author did not specify and suggest the appropriateness of which grade level students will be able to create contemporary and or traditional enameling techniques.
Chapman (1979) conducted a study to examine the in-service art teachers’ point of view regarding their favorite areas to teach, of enriching ways to teach art classes, classroom management, artist’s and teacher’s role, and curriculum features in art education classes. Six hundred American in-service art teachers participated in her study. This survey showed that more than 75% of all teachers taught drawing, painting, basic design, printmaking, sculpture, and ceramics in their art classes, but less than 30% of all teachers taught photography, interior design, fashion design, jewelry, and enameling. From her results, it can be concluded that some art areas are favored and dominated other subjects in the art classes. Another point in regard to her results is that the in-service art teachers are less likely to favor enameling arts (26%) than other art areas. This usually happens due to the lack of interests, skills, knowledge, and supplies in enameling arts. Although enameling would make an excellent subject for art education programs due to its significance, innovation, and interest, art educators hesitate to include enameling arts in the art curricula and lesson plans, and to teach enameling arts in the art classes. Also, only a few lesson plans and little information regarding the enameling arts are written in a few art curricula (Chicago Board of Education, 1972; Hilf, 1971; Furney, Castor & Kroeger, 1973; Los Angeles City Schools, 1965; Widmar, 1985). For instance, Furney, Castor, and Kroeger (1973) designed the K-12 Art Guide in the state of Kansas. In this curriculum guide, they wrote many arts lesson plans, among which included enameling arts. In the enameling lesson plan, the very basic content of enameling art was discussed. However, several weaknesses should be noted from examining this lesson plan are that the authors did not discuss how students can create enameling traditional and
contemporary techniques consisting of stenciling, counter enameling, sgraffito, sifting, cloisonné, champlevé, and plique-à-jour enameling procedures; did not state information regarding enameling safety precautions; did not discuss information creating enameling in a simple and or complex way; and did not discuss its history.

Hilf (1971) presented another example of how to teach enameling arts for secondary grades in the Dade County Public Schools in Miami, Florida. In her Creative Enameling Art, she designed course outlines for students in Grades 7 through 12. In this course outlines, she discussed much essential information consisting of the course description, rationale, guidelines, objectives, course content, brief history of enameling arts, preparing metals, various enameling techniques, and the enameling process, as well as some helpful recommendations for the instructor and students. However, one thing should be noted from examining this course outlines is that the author did not state information regarding enameling safety precautions.

Widmar (1985) taught her students about enameling art. In her short journal article, she used liquid enamels with her 8th grade students to create enameling artwork. Widmar stated that students were interested in creating enameling artworks. Prior to creating enameling artworks, she noted that students exercised “an understanding of design and color while learning the value of careful, sustained craft skills” (Widmar, 1985, p. 24). Thus, through learning this kind of art, the students will have the opportunity to understand and practice the value of enameling arts in the art classes. From examining her journal article, it should be noted that she presented some useful guidelines for teaching liquid enamels as well as safety issues.
Barriers of Teaching Enameling Arts

Several issues do not aid in implementing teaching enameling art at the school levels. Lack of skills, knowledge, materials and supplies, and safety issues are thought to be the main obstacles that stand in the way of implementing enameling in the art education curricula. One reason enameling is not taught is that art teachers lack skills, knowledge, and experience in the enameling arts. Art educators and/or classroom teachers with no skills and knowledge in enameling arts cannot teach this type of course in schools because it requires competency in both traditional and contemporary enameling techniques. The cost of the required materials is considered to be another major issue preventing the teaching of enameling art. Oltman (1990) stated that because of enameling costs and safety issues, it “has been removed from many elementary and junior high programs” (p. 44) in Harrisburg, Pennsylvania. Thus, working with enameling requires many serious precautions.

The last barrier of not teaching enameling arts is related to the safety issues. The enamellist should always wear a dust mask and goggles while mixing, applying powder enamels, and spraying enamels (Cockrell, 2004; McCann, 2003; Oltman, 1990; Widmar, 1985). It is recommended to use lead-free enamels (Darty, 2004; McCann, 2003; Oltman, 1990). The enamellist also should always wear an apron, full face shield, and heat resistant gloves while working with enameling kilns or furnaces. The enameling kilns or furnaces should be placed in a well ventilated area because it creates a very hot atmosphere (Cockrell, 2004; McCann, 2003; Oltman, 1990).
Briefly, the needed art knowledge, skills, and experiences are essential for teaching the enameling arts. Generally, it appears that most of the art education programs do not address enameling lesson plans due to the difficult safety issues, funds, and art supplies to teach enameling art.

**Advantages of Teaching Enameling Arts**

Enameling has many advantages and useful educational benefits. The first point is that enamels can be inlaid in jewelry in order to enrich it or to change its personality. The second point is that enamels can be used to decorate metals; for instance, one can create three dimensions on flat surfaces. The third point is that it can be utilized to function as a resistance or protection against scratching and heating the metal surface. Not only are enamels utilized in the front of the metal piece for a decorative purpose, but also on the back of jewelry to serve as an ornament. Next, enameling is permanent and its colors do not change and/or fade over time. In addition, enameling allow the learners to experience a hands-on art activity and gain understanding of different metal techniques consisting of soldering, casting, etching, texturing, fabricating, hammering, polishing, chasing, stamping, sawing, raising, forging, engraving, filing, metal spinning, electroforming, and electroplating.

Moreover, it contains an extensive and rich art history which reflects the aesthetic values of many cultural heritages. For example, teaching Islamic cultural heritage in art education increases the appreciation towards art. Through the study of enameling, the learner can examine many artists and the techniques that they used from diverse cultures and historical periods, including well-known contemporary enamellists like Harlan Butt.
and Valeri Timofeev as well as traditional enamellists like Léonard Limousin and Namikawa Yasuyuki (see Appendix B for other examples). The study of enameling also allows the students to become more aware of problems in society.

Skills, Knowledge, Attitudes, Pre-service Teachers Education, Training, and Professional Development

The pre-service teacher is deemed as a foundation to educate the next generation. The term is identified as “Students in a university teacher preparation program preparing for teacher certification” (Ghee, 1996. p. 20). The prospective teachers are expected to act more professionally in their career. They have to be well prepared and trained before they really get involved in any educational system. Each pre-service educator should have specific characteristics in order to be a certified and effective teacher. Houston (1990) stated that “teachers express different professional skills, knowledge, attitudes, and concerns during their careers. Taken together, this information can help teacher educators understand the needs and abilities of teachers as they advance through their careers” (p. 311). Thus, each educator should have specific characteristics in order to be a certified and effective teacher. Ross (1988) noted in his research the necessary reflective teaching components that each teacher should have:

1. Process skills such as an awareness of instruction as problematic and the ability to modify and extend one’s perception of educational phenomena.

2. Attitudes such as open-mindedness, willingness to consider the possibility of error, and the capacity for self-evaluation.
3. Knowledge of content, including subject matter, pedagogical theory, and ways to increase self-knowledge. (Ross, 1988)

Therefore, the main aspects for the teacher preparation programs should be focused on three categories consisting of skills, knowledge, and changing pre-existing attitudes through special courses.

Skills

Skills are regarded as important instruments for every teacher. Art skills are known as the capability to do certain types of art activities by every art teacher. The pre-service art educators have to master certain skills for student teaching. Thus, it is assumed that the required artistic technical skills or craftsmanship should be taught to the pre-service teachers in colleges and/or universities. These technical skills should begin with basic techniques and move to more difficult tasks according to the learners’ abilities which will facilitate each skill and level of mastery to be accomplished. Not only should the pre-service teachers have certain skills, but they should also have knowledge to teach in a professional ways.

In art education, skills and knowledge are the major goals in establishing any art curriculum. Hoover (1986) conducted a research study on the areas of knowledge, skills, and attitudes for the pre-service teachers. He used a self-report survey instrument that was focused on these areas. Hoover found that pre-service teacher’s preparation programs emphasize knowledge and attitudes more than skills levels. He concluded that there is a further need to focus on each area in pre-service teacher’s preparation programs.

According to the British Educational Communication and Technology Agency (2007), “it
is important to improve skills and knowledge together. This leads to occupational competence” (para 1). Hence, it is critical for pre-service teachers to have certain aptitudes to explain, experience, and/or be able to do certain things because it gives them more confidence and capability to teach art in a professional manner. Not only are skills and knowledge important for each student teacher, but attitudes are also one of the major elements in pre-service teacher’s preparation programs.

**Attitudes**

Attitudes are considered as an essential measurement in the humans’ life (Babbie, 1990; Cohen, 1993; Mueller, 1986; Weisberg, Kronick, & Bowen, 1996) and art (Bodenhamer, 1993; Hogg, 1982; Pelak-Valenti, 2004; Sanders, 1965; Stuckhardt, 1976; Vance, 1989). They explain human feelings, whether positive or negative, as well as likes and dislikes, and strengths and weaknesses toward objects or things (Cohen, 1993; Mueller, 1986; Weisberg, Kronick, & Bowen, 1996). Attitudes may affect our direction and/or judgments toward things. They may also influence, illustrate, and express our feelings in art and education. An art attitude refers to “beliefs, rational or irrational, that a person has concerning art, artists, and art education” (Vance, 1989, p. 84). Art attitudes may change people’s ideas toward things or what they feel about art whether it is helpful or unhelpful. In the field of art, Dorn, Madeja, and Sabol (2004) said that “Attitudes are an immensely important component in the human psyche. They strongly influence all our decisions. They greatly affect actions we take toward objects” (p. 17).

Hogg (1982) conducted a study by using the Hogg Art Attitude Inventory (HAAI), a questionnaire to determine possible relationships between the arts related
(socio-artistic) experiences in high school and the first-year college art student’s attitude toward art. Hogg’s findings showed significant relationships between one’s attitude toward art and several factors such as college of enrollment, college class rank, population of subjects’ hometown, gender of the subjects, and how time is spent before entering college. In addition, there were significant interactions between persona-logical variables that influence one’s attitude toward art. All results were statistically significant at either the .005 or .001 level.

In another study, Stuckhardt (1976) developed a scale to measure attitudes held toward the visual arts. He found that there was a direct positive correlation between the amount of training individuals have in art and the attitudes they held toward art. As a result, attitudes play a critical role in art because they may guide the learners in terms of what they prefer or dislike or what they feel about something whether positively or negatively.

Attitudes may also influence education. Tilton (1983) conducted a study to determine if students’ attitudes toward the arts are related to instruction in a comprehensive arts program. The results showed that intermediate grade students taking arts instruction expressed a significantly increased positive attitude toward the arts than intermediate students without instruction. In another study, Sanders (1965) examined the changes in art attitudes and graphic expression among retired people. He found that enrolling in the educational program used for study resulted in a significant change in the attitudes of retired people toward art and artists at the 0.5 level.
In regards to educational programs, Kagan (1992) noted

Personal beliefs that are brought with them into education programs usually remain inflexible. Candidates tend to use the information provided in course work to confirm rather to confront and correct their preexisting beliefs and images determine how much knowledge the candidate requires from a preservice program and how it is interpreted. (p. 154)

Hence, Kagan concluded that pre-service teachers’ attitudes did not show any significant changes when they took some college courses. On the other hand, she did not mention whether these programs are defective in some areas, the instructor did not put too much effort in the course, and or these programs did not satisfy the student’s needs. Wisniewski and Alper (1994) found that “…negative attitudes have been reported to be functions of the lack of pre-service training…” (p. 6). In the same issue, attitudes can be “organized though experience” (Fishbein, 1967, p. 8), and they can be developed and changed by improving knowledge and skills for the pre-service programs. Thus, changing the teacher’s knowledge, skills, practices, and ultimately their attitudes and beliefs will advance the pre-service preparation and training (Guskey, 1986). All of the previous variables can be achieved through a quality education because education plays an active role in influencing people’s attitudes toward arts, which subsequently assists to increase and elevate the individual’s knowledge.

Knowledge

Knowledge is viewed as a central aspect for each teacher. Art knowledge is defined as the “formal and informal acquired concepts, ideas, thoughts, and skills about
art that includes history, techniques, and processes” (Vance, 1989, p. 84). Art teachers should have a good knowledge base about a specific topic so that they will be able to express, talk, and provide the information needed to perform the skill (BECTA, 2007). Without this base of knowledge about specific subject matter, teachers will have difficulties in explaining and understanding subjects. Hence, knowledge is very important for every educator. As Walker (2001) stated

One reason that artists are able to explore big ideas over a long period is the time that they invest in building a solid knowledge base. Similarly, students need adequate knowledge for art making if their exploration and expression of ideas is to be substantive and complex. (p. 37)

Therefore, pre-service teachers must have a certain body of knowledge for more effective teaching. In the same way, the in-service teachers should have an in-depth and broad body of knowledge through professional development for better educational outcomes. However, there are different kinds for knowledge that teachers should know. In 1987, Shulman classified the elements of knowledge as the following:

- Content knowledge
- General pedagogical knowledge, with special reference to those broad principles and strategies of classroom management and organization that appear to transcend
- Curriculum knowledge, with particular grasp of the materials and programs that serve as “tools of the trade” for teachers
- Pedagogical content knowledge, that special amalgam of content and pedagogy that is uniquely the province of teachers, their own special form of professional understanding
- Knowledge of learners and their characteristics
- Knowledge of educational contexts, ranging from the workings of the group or classroom, the governance and financing of schools districts, to the character of communities and cultures
- Knowledge of educational ends, purposes, values and their philosophical and historical grounds. (p. 8)

Thus, the elements of knowledge aid the educator to transmit the content of the subject matter to the students in a professional ways.

Moreover, knowledge is always considered one of the lacking aspects for some educators. It may influence the instructor skills and attitudes. Many researchers (e.g. Reid, Reid, Whorton, & Reichard, 1972; Schultz, 1982; Schumm & Vaughn, 1992; Wisniewski & Alper, 1994) have concluded that skills level will be improved and attitudes will be changed from negative to positive if knowledge is increased. Dorn, Madeja, and Sabol (2004) noted that “… for instructional purposes we need to know how successful we are in providing such knowledge and how valuable the knowledge is in achieving expressive kinds of knowing” (p. 87). In addition, knowledge assists the students to have many chances to express their thoughts verbally and visually. However, it depends on whether the knowledge acquired while preparing to become certified art teachers was in-depth or shallow. If the pre-service art teachers fail to develop the
adequate needed understanding during the training programs, then they can not teach art classes with in-depth knowledge. Therefore, it is very important to have both in-depth and a broad body of knowledge in order to be a qualified art teacher.

In summary, attitudes can affect our direction and judgments toward things. Skills are very important to perform art activities in the classrooms. Both broad and in-depth knowledge facilitate the learning process to convey the content of the subject matter to the students in better ways. Hence, knowledge, skills, and attitudes are deemed the main issues in the teacher preparation and training programs.

**Pre-service Teacher Preparation and Training**

Pre-service teacher preparation and training programs are one of the main concerns in the Kuwaiti and the US educational systems. The National Council for Accreditation in Teacher Education (NCATE) (1998) said, “A majority of teacher preparation programs are falling far short of what needs to be done” (p. 7). It is very clear that a greater part of the pre-service teacher preparation programs lack many aspects. Darling-Hammond (1998) raised some important questions about pre-service teachers. She asked: “What do teachers need to know to teach the students according to today’s standards? What kinds of pre-service training and on-going professional development will make teacher success more likely?” (p. 7). The preparation programs are established to achieve certain goals for producing high-quality prospective teachers, but these goals must be consistent with and related to the courses provided for prospective teachers to be able to acquire the needed competencies. However, there are several problems in the pre-service preparation programs to accomplish its goals. There are also some barriers to alter
the teacher preparation programs. Therefore, in order to achieve certain goals for producing high-quality prospective teachers, there should be some advisable ways to develop the pre-service preparation programs and to advance the professional developments.

*The goals of pre-service preparation programs.* The goals of pre-service preparation programs are to prepare high-quality prospective teachers. Zelazek, Williams, McAdams, and Palmer (1997) conducted eight follow-up studies by the Teacher Education Assessment Committee (TEAC) at Central Missouri State University and found that “pre-service teachers believe that their coursework increased their knowledge and understanding about issues and tends to improve their practice in schools and classrooms” (p. 5). Pre-service teachers realize the effectiveness of the coursework for the preparation program when they are enrolled in some classes. It can be concluded that teacher education programs have clear purposes along with successful goals for preparing the prospective teachers.

In the visual arts, the College Board (1985) indicated that students need to acquire the following essential knowledge and skills during college preparation:

- Intensive work in at least one art discipline. Students need time and in-depth instruction in order to focus on the unique concepts and ways of thinking specific to an art form.
- Significant progress toward three kinds of abilities:
  - Knowledge of how to produce or perform works of art
  - Knowledge of how to analyze, interpret, and evaluate works of art;
Knowledge of works of art of other periods and cultures. (p. 20)

Thus, art college preparation programs should present certain standards for the learners for knowing and creating in the visual arts. Houston (1990) said:

If teacher education institutions are to succeed in providing prospective teachers with skills and knowledge needed for effective performance...the experience provided in the classroom must correspond to the goals established for the entire teacher education program. (p. 516)

Each teacher education program has to have a clear philosophy in regards to their visions and missions that demonstrate its vital goals. Al-Ahmad (1986) emphasized that “There should be an integration between practical education programs and the educational, academic and cultural school courses in order to be better able to achieve the objectives of teacher preparation programs” (p. 89). Therefore, goals must be consistent and related to the courses provided to offer the needed competencies for prospective teachers.

Conversely, in pre-service preparation programs, there are some weaknesses when trying to accomplish necessary goals. Gail and Giles (1999) noted that “Pre-service teachers with professional weaknesses who are unsuccessful in the field may need additional experiences to strengthen professional skills if these skills were not learned within the planned course of study” (p. 38). Thus, the unsuccessful student teachers in the field should have new additional courses that better prepare them if they are not performing well in academic ways.
The problems of pre-service preparation programs. Pre-service teacher preparation and training have always become a controversial concern in the educational system. Most of the researchers have found that colleges or universities are not providing high-quality programs that prepare and train pre-service teachers (Bufarsan, 2000; Darling-Hammond, 1998; Sabol, 2004). Gooler (1989) noted that “Since universities remain the gatekeepers of the supply of new teachers, why aren’t those teachers being adequately prepared” (p. 18). Many dilemmas will be generated if the colleges and universities produce prospective teachers without adequate training. The National Council for Accreditation in Teacher Education (NCATE) (1998) reported that “A majority of teacher preparation programs are falling far short of what needs to be done” (p. 7). It is certain that most teacher preparation programs are inadequately offering the needed preparation programs. For example, Bufarsan (2000) stated that in the College of Basic Education (CBE) “A phenomenon has emerged among the pre-service teachers that indicate the dissatisfaction with graduates of current teacher training programs in Kuwait” (p. 15). In other words, it is obvious that the teacher education program is not preparing and training the pre-service teachers in the CBE very well.

Barriers to Alter the Teacher Preparation Programs. Difficulties to reform teacher preparation programs are common in the educational system. The first obstacle is to change the teaching methods (Mohammad, 2004; Zimpher, 1990). Limited educational resources such as library, laboratory, and instructional resources are the second barrier to alter the teacher preparation programs (Zeigel, 1939). Another significant obstacle is financial. If there are enough finances, then any required materials and supplies will
easily be affordable for the preparation programs (Zimpher, 1990) and for the art education preparation programs in particular (Al-Mass, 1999). The next barrier is the lack of qualified instructors who are capable to educate the pre-service teachers. For instance, in the visual arts, the art education programs should be designed to meet the students’ needs in regards to their need to know and be able to do art (Henry & et al., 1999) and not to be designed according to the faculty’s interests or specialization (Hutchens, 1997). In the field of art education, only a small number of research studies have discussed the conditions and contents of the teacher education programs (Davis, 1990). Researchers also have emphasized the lack of research and practice in the art educator preparation programs (Davis, 1990; Galbraith, 1990; Zimmerman, 1994b, 1994c). Thus, the last barrier is that there is inadequate research to assess and suggest changing the pre-service preparation programs.

*The suggested ways to advance the pre-service preparation programs.* Teacher preparation programs are one of the main concerns in this century. The National Art Education Association’s (NAEA) goals in the *Creating Visual Arts Research Agenda Toward the 21st Century* emphasized “the structure of teacher education programs, and pre-service and in-service education issues, including laboratory and clinical experiences, post-baccalaureate education, and alternative certification standards” (Zimmerman, 1994a, p. 40).

It is clear that the NAEA is not satisfied with the current conditions regarding the art teacher preparation programs. Sabol (2004) stressed that “… restructuring of pre-service programs to meet the demands of the changing field” (p. 527) is necessary.
Reform is needed to achieve certain goals, produce well-qualified and well-prepared teachers, and advance the teacher education programs for improving the field of art education.

According to Galluzzo’s and Craig’s (1990) point of view, the purpose of evaluating pre-service preparation programs are to indicate “(a) accountability, (b) [program] improvement, (c) understandings, and (d) knowledge production” (p. 605). Assessing the pre-service preparation programs allow the researchers to find out what is missing and what really needs to be changed and added. The need for program evaluation in teacher education was discussed by Stufflebean (1982), who mentioned

We cannot make our programs better unless we know where they are weak and strong and unless we become aware of better means. We cannot be sure that our goals are worthy unless we can match them to the needs of the people they are intended to serve. We cannot plan effectively if we are unaware of options and their relative merits; and we cannot convince our constituents that we have done good work and deserve continued support unless we can show them evidence that we have done what we promised and produced beneficial results. For these and other reasons, teacher educators must subject their work to competent evaluation. It must help them sort out the good from the bad, point the way to needed improvements, be accountable to their sponsors and clients, and, in general, promote a better understanding of teaching and teacher education. (p. 166)

There are some recommended solutions to eliminate the weaknesses in the pre-service teachers programs. Putnam and Borko (2000) suggested one method for teachers
to learn experiences and knowledge by continuing activities and workshops which are focused on instructional practices. Also, instructional activities such as conferences and meetings should be addressed in order to develop pre-service teachers’ performances. Surveying the pre-service teachers and faculties, and reviewing the program is another method to update the core curriculum of the pre-service teacher programs to accommodate the student’s needs based on research findings. A further method is to use several research methods for better results that assist to reform the current preparation programs (Thurber, 2004).

In the last century, many researchers (e.g., Brush, 1998; Thompson, Schmidt, and Hadjiyianni, 1995) have recommended that the traditional courses for pre-service preparation programs should be reviewed, changed, and updated to improve the quality of teacher preparation. Offering advanced courses for more professional development is another method in order to improve the pre-service preparation programs (Sparks and Locuks-Horsley, 1990). For more effective programs, feedback from the current program graduates should be requested to evaluate and develop the teacher preparation programs (Bogue & Sanders, 1992). Thus, feedback may clarify the program’s advantages and disadvantages that need to be developed or changed. Gail and Giles (1999), for instance, suggested offering a course for weak pre-service teachers to rebuild their poor skills, knowledge, and attitudes in order to help them be successful teachers in the future. Finally, more research should be conducted to assess pre-service programs over a period of time for better educational outcomes and to evaluate the effectiveness of professional development.
Professional Development

Professional development is an important issue for in-service teachers. Al-Dawoud (2001) noted that professional development is “a process of providing opportunities for teachers to learn and improve their knowledge of “what” to teach and their skills of “how” to teach” (p. 13). Sparks and Locuks-Horsley (1990) noted that professional development’s main rationale is to provide advanced knowledge and new skills and to improve attitudes for better professional careers. Zimmerman (1994b) suggested that a solution for improving teacher education is “re-educate teacher education faculty,” providing them with professional development.

Many researchers such as Charland (2006), Conway, Hibbard, Albert, and Hourigan (2005), Darling-Hammond (1998), Davis and Syndics Research Corporation (1999), Eleser and Chauvin (1998), and Putnam and Borko (2000) have supported attending ongoing workshops, conferences, and hands-on activities as approaches for professional development. The Marcus Retreat Salado report, for example, addressed the professional development issue, and suggested attending advanced workshops and conferences for better teaching and learning outcomes in art programs (Davis & Syndics Research Corporation, 1999). In the same manner, several researchers (e.g., Henry, Banks, Day, Dunn, Fergus, Foster, Galbraith, Hatfield, Hansen, & Young, 1999) have stressed that art education faculty members should up-date their professional knowledge “through reading the literature, attending professional institutions and conferences, and by exchanging ideas with colleagues” (p. 7). Putnam and Borko (2000) also
recommended ongoing workshops and activities as an approach for professional development.

Studies reported by Al-Dawoud (2001), Desimone, Porter, Garet, Yoon, and Birman (2002), and Halpin, Croll, and Redman (1990) have indicated the effectiveness of professional development approaches. In her dissertation, Al-Dawoud (2001) examined and analyzed the effects of a cooperative learning and training workshop on its participants’ attitudes toward cooperative learning, participants’ knowledge about cooperative learning and its academic and social benefits. The findings in the study showed a significant difference in knowledge and attitudes toward cooperative learning was found between the control group and the two experimental classes at the CBE. Overall, the training workshop influenced the pre-service teachers positively toward the cooperative learning approach.

In a three-year longitudinal study, Desimone, Porter, Garet, Yoon, and Birman (2002) examined the effects of professional development on teachers’ instruction. They found that professional development for particular teaching practices increases instructors’ utilization of learned practices in the classroom. In another study, Halpin, Croll, and Redman (1990) investigated the teachers’ perceptions of the effects of in-service education and training. The results showed that higher education in-service courses positively influenced the area of teachers’ attitudes and knowledge levels more than their effects on school organization and policy levels.

Professional development leads to change the professional status of teachers. In other words, professional development increases knowledge and skills, improves the
educator performance, elevates the awareness of the field, gives more self-confidence, and increases the positive attitudes toward the teaching profession for the in-service teachers.

Schultz (1965) went on to say that “a teacher’s education does not end with receiving a college degree. A good teacher continues to learn about teaching as long as he is in the profession of helping others to learn” (p. 107). This means that professional development is lifelong learning. Professional development aligns with Five Stages of Skills Acquisition. In 1986, Dreyfus, Dreyfus, and Athanasiou proposed the model of Five Stages of Skill Acquisition. This model allows the learner to pass through several stages from 1) novice, 2) advanced beginner, 3) competent, 4) proficient, and finally to 5) expert (Dreyfus, Dreyfus, & Athanasiou, 1986). Throughout these stages, the learner has many chances from novice to expert in order to acquire adequate experiences. As learners move through the Stages of Skill Acquisition, they perform better and become more experienced (Dreyfus, Dreyfus, & Athanasiou, 1986).

In conclusion, teacher education preparation and training programs should be a high priority in this century. Pre-service programs should be designed to meet the student’s needs and align with the national standards. In the field of art education, the teacher preparation programs should be changed to meet the students’ needs and to provide the needed knowledge and skills for preparing highly qualified art teachers (Cochran-Smith, 2004). The pre-service art programs should be reviewed, restructured, and updated to achieve the educational goals for preparing prospective teachers. Kochan (2000) pointed out that professional development is necessary for the in-service art
teachers because efficient professional development improves the teachers’ accountability. Therefore, advanced conferences, workshops, seminars, and hands-on activities should be designed to educate and evaluate the teachers’ profession. Curricula also need to be recreated and updated for better learning outcomes.

Summary

In a brief summary, the review of the related literature discussed fourteen elements consisting of the following: theoretical framework; the elements of designing an art curriculum; enameling in art education; skills; knowledge; attitudes; pre-service teacher preparation, training, and professional development. The existing literature offered verification that there is no conducted research which examines the use of designing a syllabus for enameling course for the pre-service art teachers at the College of Basic Education in the State of Kuwait.
CHAPTER 3

METHODOLOGY

Introduction

The purpose of this study was twofold: (1) to examine the knowledge, skills, and experiences in the enameling arts and the attitudes and perceptions of in-service and pre-service Kuwaiti art teachers, art supervisors at the Ministry of Education (MOE) and art education faculty members at the College of Basic Education (CBE) and Kuwait University (KU) about what they believed pre-service art teachers should know and be able to do in order to teach the enameling arts, and (2) to use this information to inform and guide the development of a content outline for an enameling course for pre-service Kuwaiti art teachers that is educationally, culturally, and practically suitable.

The amalgamations of both quantitative and qualitative research methods are very significant while conducting a research study for more valid and reliable results. As Strauss and Corbin (1998) stated, combining both quantitative and qualitative methods leads to “complement” and “supplement” (p. 31) each other. In this study, not only were quantitative and qualitative research methods used for supporting purposes, but they were also used due to the nature of the study. For example, Yin (1994) noted that the methodology employed in a research study is often guided by the formulation of the research questions and the studied phenomenon. Thus, both quantitative and qualitative
methods were used in this mixed methods study. Creswell and Plano Clark (2007) noted the following benefits which come from utilizing the mixed methods design:

1. Provides strengths that offset the weaknesses of both quantitative and qualitative research
2. Provides more comprehensive evidence for studying a research problem than either quantitative or qualitative research alone
3. Encourages researchers to collaborate across the sometimes adversarial relationship between quantitative and qualitative researchers
4. Encourages the use of multiple worldviews or paradigms rather than the typical association of certain paradigms for quantitative researchers and others for qualitative researchers
5. Provides practicality in the sense that the researcher is free to use all methods possible to address a research problem. (Creswell & Plano Clark, 2007, pp. 10-11)

In addition, mixed methods designs lead to triangulation which leads to increase the credibility of the data (Creswell, 2009; Creswell & Plano Clark, 2007; Glesne, 2006; McMillan, 2008). As Denzin (1978) noted, triangulation can be achieved through the use of multiple sources, multiple perspectives or theories, multiple investigators, and multiple data collection methods. As a result of using multiple methods used in examining data (questionnaire, interviews, and documents) in this study, the researcher was enabled to gain in-depth vision and understanding of the studied phenomenon, collect detailed data, increase the reliability of the findings, examine multiple sources of data that are collected
to “support a particular hypothesis or theory” (Leedy & Ormrod, 2001, p. 105), and compare and/or combine multiple data sources (Tashakkori & Teddlie, 2009).

Design of the Study

The combination of quantitative method and qualitative methods was used in this mixed methods study. This type of mixed-methodology is called a concurrent triangulation design or a parallel triangulation design (Creswell, 2009; Creswell & Plano Clark, 2007) or a parallel/simultaneous design (Tashakkori & Teddlie, 1998; Teddlie & Tashakkori, 2009) in which both quantitative and qualitative data are collected at the same time but separately for better understanding of the research problem. In concurrent triangulation design, the two datasets from separate results are merged during the data analysis (Creswell, 2009; Creswell & Plano Clark, 2007; Tashakkori & Teddlie, 1998; Teddlie & Tashakkori, 2009). In this mixed methods study, survey instruments were used in the gathering of numerical, quantitative data and non-numerical, qualitative data. The qualitative methods were used for interviewing, examining partially close-ended questions, additional comments and suggestions from the questionnaire, and examining documents from the Ministry of Education (MOE), the College of Basic Education (CBE), and the Dar al-Atahr al-Islamiyyah.

Quantitative Component

The survey questionnaire was used to collect information about a social phenomenon, and its main rationale was to describe, explore, and explain the particular attributes of a large population (Babbie, 1990, 2007; Jaeger, 1997; Sonquist & Dunkelberg, 1977). The survey questionnaire instrument was designed for the pre-service
art teachers at the CBE in Kuwait. The main objective of this questionnaire was to gather general information concerning knowledge, skills, experiences, perceptions, and attitudes towards the enameling arts.

Qualitative Component

Eisner (1991, 1998) stated the six attributes of qualitative study as field focused, constructed so that the researcher is an instrument, interpretative in nature, expressive in language, persuasive, and highly detailed. In this study, the qualitative component consisted of face-to-face structured interviews, examining partially close-ended questions from the survey questionnaire, the additional comments and suggestions made on the questionnaire, and examining documents from the Ministry of Education, the College of Basic Education, and the Dar al-Atahr al-Islamiyyah.

The major part of these interviews was meant to retrieve subjective information from samples of the in-service art teachers at the MOE, the art supervisors at the MOE, the art education faculty members at the CBE, and art education faculty members at the Kuwait University. More specifically, the purpose of these face-to-face structured interviews was to gather general information concerning knowledge, skills, experiences, perceptions, and attitudes towards the enameling arts. Another significant objective of conducting these interviews was to gather information about the enameling arts that could not be obtained by the survey questionnaire and to investigate the problem from different perspectives.

The partially close-ended questions from the survey questionnaire and the additional comments and suggestions from the survey questionnaire were also examined.
The partially close-ended questions and the additional comments and suggestions were meant to allow the participants to provide further information.

The other important sources of data were curriculum documents at the Ministry of Education (MOE), the College of Basic Education (CBE), and the Dar al-Atahr al-Islamiyyah that related to the enameling arts. The main target of these vital documents was to find out whether or not there was any enameling art content for pre-service art teachers included in the Kuwaiti art curriculum.

Human Subjects Review

Prior to engaging in the data collection, approval from the Institutional Review Board (IRB) for the protection of the human subjects at the University of North Texas (UNT) was obtained (see Appendix C). According to the IRB rules and regulations, this research study was given an exemption review because it did not involve minors, did not involve minimal risks, and did not contain sensitive topics. During the evaluation process, the IRB reviewed and approved the research instruments (see appendices D, E, F, G, & H), the consent forms (see appendices I & J), and the permission letters for the Kuwaiti educational institutions (see appendices K, L, & M).

Sources of Data

There were two targeted sources of data for this study: Kuwaiti art educators and art documents and records from the Kuwaiti Ministry of Education, the College of Basic Education, and the Dar al-Atahr al-Islamiyyah. Five subsets of art educators were identified as important to this study: (1) pre-service Kuwaiti art teachers at the College of Basic Education (CBE), (2) in-service art teachers at the Ministry of Education...
Participants

The entire population of the pre-service art teachers in the College of Basic Education during the spring 2009 \( (n = 170) \) was utilized in the study. This population was selected because they were the only national representative of the pre-service art educators in the State of Kuwait. The total number of this target population was comprised of 170 pre-service teachers. Samples from the other four sub groups were selected for the face-to-face structured interviews. A non-probability sampling technique or non-random sampling technique was used to select these participants in the study due to the lack of time and the accessibility of surveying the entire population and due to the need to select participants due to their special qualifications.

In-depth, face-to-face structured interviews were designed to retrieve subjective information from four different groups: (1) 12 Kuwaiti in-service art teachers at public schools who had an understanding of the pre-service art program at the CBE and the art education curriculum in general at the Ministry of Education, especially the enameling arts and ceramics; (2) 3 Kuwaiti art supervisors from the Ministry of Education in Kuwait, including the Head of Art Education Supervisors from the MOE, who were selected due to their experiences with the art education curriculum in general at the CBE and the MOE, especially in relation to the enameling arts and their experience in art supervision and teaching in all six Kuwaiti states; (3) 6 Kuwaiti art education faculty members at the College of Basic Education, (4) the art education supervisors at the Ministry of Education, and (5) the art education faculty members at the Kuwait University.
members from the Department of Art Education at the CBE who had experience in the art education curriculum at the MOE and the pre-service art program at the CBE, especially as they related to the enameling arts and ceramics; and (4) 2 Kuwaiti art education faculty members from the Kuwait University were selected because of their background and experience with the art education curriculum at the MOE, art supervision at the MOE, and the pre-service art education program at the CBE. More specifically, the selection of the art faculty members at the College of Basic Education (CBE) and at the Kuwait University (KU) was based on their active research on subjects related to pre-service art teacher education, the art education program at the CBE and the Ministry of Education (MOE), and on their familiarity with survey research methods that coincides with the research methodology that they had adopted in their dissertations.

Art Documents & Records

The second major source of data for this study was the art documents from the MOE, the CBE, and the Dar al-Atahr al-Atahr al-Islamiyyah. These art documents were primarily art education curriculum documents and other references from Islamic art and culture in the Kuwaiti Dar al-Atahr al-Islamiyyah which included the following:


3. Metallsmiting professional development document for in-service art teachers from the MOE.
4. Metalsmith I (AE 171) and Metalsmith II (AE 371) course syllabi from the CBE.

5. Autobiography (The Endless Dream) by the artist Mohammad Qambar, an art education faculty member from CBE that contained photographs of metalwork’s and enameled artworks - 2006.

6. Three books from Dar al-Atahr al-Islamiyyah entitled Verity in Unity (Qadome, 1987), Islamic Art in the Kuwait National Museum (Jenkins, 1983), and Treasury of the World: Jewelled Arts of India in the Age of the Mughals (Keene & Kaoukji, 2001).

These items constituted all of the relevant existing and published art documents available to the researcher. The general Ministry of Education document (item 1) is the only document (and the latest version) available on the art education curriculum at the MOE. Documents 2 and 3 are the only available MOE documents that exist that are related to metals. Item 4 is the only document with course syllabi that include any material related to metals and enameling at the CBE. Item 5 is included because it is an important document by a CBE faculty member and is the only such document that includes information and images related to enameling arts. Item 6 includes the only art documents at the Dar al-Atahr al-Islamiyyah that include information and images related to the enameling arts in the Kuwaiti Islamic culture.

Data Collection

Prior to engaging in the data collection, permission to conduct the study was sought from the College of Basic Education (see Appendix K), the Ministry of Education
In addition, consent forms were requested from all participants (see Appendices I & J). Once all these permissions were gained, data collection began.

**Instrumentation**

Two data collection instruments were developed: a self-administered questionnaire and an interview protocol. The research instruments were constructed to compile numerical and non-numerical data. The creation of these instruments was guided by the research questions, the research problem, and the related research literature; they provided the framework and knowledge for developing the questionnaire and the interview questions. In addition, the questionnaire format was adapted and modified from Mohammad’s (2004) and Al-Sayegh’s (1998) dissertations. Thus, the research instruments consisting of questionnaire and face-to-face structured interviews were developed.

**Survey questionnaire.** The survey questionnaire instrument (see Appendix D) for the pre-service art teachers had four parts: (1) demographic information, (2) perceptions and training experiences, (3) knowledge and skills, and (4) attitudes. The survey question’s formats consisted of the following:

1. A simple summated rating scale was used to examine only one concept (Yes/No) (Babbie, 1990, 2007; Salant & Dillman, 1994).
2. Close-Ended Questions with Ordered Response Choices (Salant & Dillman, 1994); The respondents were asked to select their specific answer from a list provided.

3. Partially Close-Ended Questions (Salant & Dillman, 1994); The respondents were asked to select their answer from a list provided or to select the phrase (please specify or please indicate them) and then write additional comments.

4. A five point Likert scale (SA = strongly agree, A = agree, D = disagree, SD = strongly disagree and U = undecided or don’t know = DK) was used to collect data from the pre-service art teachers (Babbie, 1990, 2007). It was designed to measure the Kuwaiti pre-service art teachers’ attitudes toward the enameling arts. (Babbie, 1990, 2007).

Interview protocols. The interview schedule formats consisted of the following: The in-depth (face-to-face) structured interviews were conducted with (1) the in-service art educators from the Ministry of Education (MOE) – 26 questions (see Appendix E); (2) the art education faculty members from the College of Basic Education (CBE) – 22 questions (see Appendix F); (3) the art education supervisors from the Ministry of Education (MOE) – 25 questions (see Appendix G); and (4) the art education faculty members from the Kuwait University – 24 questions (see Appendix H). In all of these all interviews, no additional or spontaneous questions were asked.

Arabic version of the survey instruments. Both English and Arabic versions of the survey instruments were designed for this study. In Kuwait, English is considered as a second language. Thus, an Arabic version of the survey questionnaire and face-to-face
structured interviews was developed and translated by the researcher, and then it was rechecked by the researcher’s colleagues Dr. Anwar Mohammad, Ali Al-Qallaf, and Shatha Darwish. The survey instruments were typed using, Times New Roman typescript with 12 font size, Microsoft Word in English and then were translated into the Arabic language (see appendices N and O for the Arabic questionnaire and the Arabic interview protocol).

**Data Collection Procedures**

*Self-administered survey questionnaire.* The survey questionnaire was administered at the College of Basic Education during the spring 2009, from March 19, 2009 to April 7, 2009. A self-administered survey questionnaire was administered to one hundred seventy \((n = 170)\) pre-service male and female Kuwaiti art teachers. The questionnaire was administrated in classes at the Department of Art Education in the CBE with the aid and facilitation of the art instructors who were teaching these art classes. The sample of pre-service teachers comprised the entire population at the time the survey was administered. It was anticipated that it would take each participant 15 to 20 minutes to complete the questionnaire. The survey instrument was accompanied by a cover letter explaining the importance of the study, the purpose of the study, the amount of time that is needed to complete the questionnaire, a consent form, and contact information for the investigator and the research advisor (names, emails, addresses, and office phone numbers). The questionnaire was distributed and collected by the researcher which resulted in securing a high response rate of 92.39%.
Face-to-face structured interviews. As indicated earlier, the prospective interviewees were selected by the researcher due to their art educational experiences and special qualifications. The qualitative in-depth structured (face-to-face) interviews were conducted at the College of Basic Education, the Ministry of Education, and the Kuwait University. Specifically, these interviews took place on site at the interviewees’ public schools, the Department of Art Education at the CBE conference room, the Kuwait University conference room, and the Supervision of Art Education at the MOE conference room. The conducted interviews were conducted with 12 Kuwaiti in-service art teachers from the Ministry of Education at public schools, 6 Kuwaiti art education faculty members from the Department of Art Education at the CBE, 3 Kuwaiti art supervisors from the Ministry of Education, and 2 Kuwaiti art education faculty members from the Kuwait University Department of Art and Design (AAD) and from the Department of Curriculum and Instruction. The in-depth interviews consisted of between 22 to 26 open-ended questions for each interviewee (see appendices E, F, G, & H for the research interview protocols). It was anticipated that all the face-to-face interviews would take approximately one hour each.

All of these in-depth structured interviews were conducted separately to ensure confidentiality. Some of the interviewees, in particular female in-service art teachers, preferred to be anonymous. Consequently, an alphabetical code was assigned for each interviewee in order to ensure privacy. The assigned codes for: in-service art teachers at the MOE, art education supervisors at the MOE, art education faculty members at the CBE, and art education faculty members at KU are shown in Table 1).
Table 1

Alphabetical Codes of the Interviewees

<table>
<thead>
<tr>
<th>Sample Groups</th>
<th>Assigned Codes</th>
</tr>
</thead>
<tbody>
<tr>
<td>In-service Art Teachers at the MOE</td>
<td>A, B, C, D, E, F, G, H, I, J, K, L</td>
</tr>
<tr>
<td>Art Supervisors at the MOE</td>
<td>O, P, Q</td>
</tr>
<tr>
<td>Art Education Faculty at the CBE</td>
<td>R, S, T, U, V, W</td>
</tr>
<tr>
<td>Art Education Faculty at KU</td>
<td>M, N</td>
</tr>
</tbody>
</table>

Also, due to the cultural reasons and privacy issues no audio or video tapes were created. Note taking was used to capture data during the interviews. At the end of each interview, respondent validation was sought from the interviewees in order to ensure trustworthiness of the content and check for inaccurate responses (Lincoln & Guba, 1985).

Supplementary art documents and records. A hard copy of all the important art documents and records was obtained and examined to determine if there were any enameling arts content included in the Kuwaiti art curriculum. Additionally, an examination of these documents was made to retrieve the grounded data about the enameling arts and determine if it is necessary for the Kuwaiti pre-service and in-service art teachers.
Data Analysis

Quantitative Data Analysis Process

The quantitative data analysis was focused on the answers to the close-ended questions, close-ended questions with ordered response choices, partially close-ended questions, Likert rating scale, and the simple summated rating scale from the questionnaire.

The results were numerically coded and the Statistical Package for the Social Survey (SPSS) 16.0 computer software was used to analyze the data. Post-coding after the data collection for the questionnaire was used. With regards to the coding process, each category (answer) for each item/concept in the questionnaire was assigned with a numerical code. Then, these items/concepts were computed to set a total score. The research findings were reported as percentages. For the purposes of this study only descriptive statistics - frequency distributions and percentages were obtained. In this respect, frequency distribution and percentages enabled the researcher to understand and describe the data.

Qualitative Data Analysis Process

The qualitative data analysis was focused on the answers from the partially close-ended questions and additional comments from the questionnaire, open-ended questions and comments from the in-depth interviews, and examining documents from both art education programs at the MOE, and the CBE, as well as the Dar al-Atahr al-Islamiyyah. All interviews was transcribed and post-coded after the data collection. A coding system from the grounded theory approach (Glaser & Strauss, 1967) was utilized because this
coding strategy allows for the use of open coding, axial coding, and selective coding (Glaser & Strauss, 1967; Glaser, 1978, 1992; Strauss & Corbin, 1990, 1998) in order to analyze the content of the interviews and other sources of data in a significant way. Throughout this coding system, many themes, categories, and patterns emerged to serve as a basis for developing a content outline for the enameling arts.

The process of data analysis consisted of several stages. First, the major concepts from the data were labeled. Then, the discovered concepts in significant units were arranged. Next, these meaningful units were arranged into categories and sub-categories. Categories were established to discover the meaningful features in the content. Finally, the commonalities and uniqueness of the patterns were identified. Hence, patterns in participants’ skills, knowledge, attitudes, and perceptions regarding enameling art were sought. Also, the Kuwaiti art teachers’ knowledge, skills, attitudes, and perceptions about the enameling arts were investigated and used to explain the recent conditions in the MOE and the CBE regarding the enameling arts.

A qualitative content analysis (Babbie, 2007; Bryman, 2004; Leedy & Ormrod, 2001) of important official and personal documents consisting of the Kuwaiti art curriculum from the MOE and CBE resources from the Dar al-Atahr al-Islamiyyah, and autobiography of the Kuwaiti artist and art educator Mohammad Qamber, was used to describe the information about the enameling arts content that was included.

Validity

Validity is the measure of accuracy with which an instrument measures what it is intended to measure (Babbie, 1990, 2007). In this study, the research instruments were
validated in order to determine their precision. The research instruments were examined by experts in art education consisting of the research advisor and Doctoral Committee members in order to ensure the appropriateness of questions and statements in the survey instruments and interview schedules. The feedback from the results of these examinations allowed the researcher to achieve the following:

1. Check the face validity or logical validity (Babbie, 1990, 2007) to determine whether an indicator is valid on its face, an indicator is a good measure, and is relevant to the concept

2. Ensure the internal or content validity (Babbie, 1990, 2007) and whether the items/indicators used to measure a concept include all aspects of the concept or the items covers all the content

3. Ensure that the instructions and explanations are clear and logical

4. Gain valuable comments and suggestions about the structure of the instruments

**Reliability**

Reliability is the measure of consistency of generating information repeatedly to the same object which produces the same outcomes each time (Babbie, 1990, 2007). Because this research was considered a cross-sectional study which can not be repeated over a period of time, it was problematic to establish reliability. Thus, the internal consistency reliability statistics of each item in the survey questionnaire was estimated. This statistical process was evaluated by using Cronbach’s (1951) alpha reliability coefficient. Cronbach’s (1951) alpha reliability coefficient was used on the survey questionnaire and a reliability coefficient, value of 0.804 was obtained on 35 standardized
items for the 170 respondents. This indicates that the instrument has a very good reliability value, according to De Vellis’s (1991) instructions with regards to the acceptable reliabilities for research instrument scales.

Moreover, the triangulation technique was used through the use of multiple sources (questionnaire, interviews, and documents), multiple perspectives or theories, and multiple data collection methods in order to increase the reliability of the research findings in this study (Byrne, 2001; Creswell, 2009; Creswell & Plano Clark, 2007; Denzin, 1978; Glesne, 2006; McMillan, 2008). In addition to the triangulation technique, member checking was sought from the interviewees’ in order to ensure reliability of the contents and verify for the incorrect responses at the end of each interview (Byrne, 2001; Lincoln & Guba, 1985; McMillan, 2008).

Summary

This chapter describes the methodology utilized in this study. It addresses the sources of data for the study - survey questionnaire, interview protocols, and documents; how the data were collected, and how the data were analyzed. Validity and reliability issues are also addressed.
CHAPTER 4
FINDINGS AND DISCUSSION

Introduction

The purposes of this mixed methods study was to (1) to examine the knowledge, skills, and experiences in the enameling arts and the attitudes and perceptions of in-service and pre-service Kuwaiti art teachers, art supervisors at the Ministry of Education (MOE) and art education faculty members at the College of Basic Education (CBE) and Kuwait University (KU) about what they believed pre-service art teachers should know and be able to do in order to teach the enameling arts, and (2) to use this information to inform and guide the development of a content outline for an enameling course for pre-service Kuwaiti art teachers that is educationally, culturally, and practically suitable.

The data analysis involved both quantitative and qualitative elements. The quantitative data were obtained through responses to a survey questionnaire, while the qualitative data were obtained from the partially close-ended questions and additional comments and suggestions from the survey questionnaire; face-to-face structured interviews; and documents from the Ministry of Education, the College of Basic Education, and the Dar al-Atahr al-Islamiyyah.

The Participants

The demographics of the participants who took the survey questionnaire are summarized in Table 2. A total of one hundred seventy \((n = 170)\) survey questionnaires was obtained from pre-service teacher education students at the CBE at the high response
rate of 92.39%. Over three-quarters (77.6%) of the respondents were females ($n = 132$), whereas about a quarter (22.4%) of the respondents were males ($n = 38$). Participants were about equally split between those in their first year in college (34.7%, $n = 59$) and those in their second year in college (30%, $n = 51$). The remaining participants (22.4%, $n = 38$) were in their third year in college. Only a few respondents (8.8%, $n = 15$) were in their fourth year in college, while still fewer (4.1%, $n = 7$) were in their fifth year in college.

The majority of the pre-service participants (89.4%, $n = 152$) were between 18 and 22 years of age. A few respondents (8.2%, $n = 14$) were between 23 and 27 years of age, and fewer respondents (1.8%, $n = 3$) were between 28 and 32 years of age. Among the entire population, there was only one participant (0.6%, $n = 1$) older than 33 years of age.
Table 2

Demographic Statistics of the Respondents to the Survey Questionnaire

<table>
<thead>
<tr>
<th>#</th>
<th>Variable</th>
<th>Frequency (f)</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.</td>
<td>Gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Male</td>
<td>38</td>
<td>22.4</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>132</td>
<td>77.6</td>
</tr>
<tr>
<td></td>
<td>Total (n)</td>
<td>170</td>
<td>100.0</td>
</tr>
<tr>
<td>3.</td>
<td>Year in College</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>First</td>
<td>59</td>
<td>34.7</td>
</tr>
<tr>
<td></td>
<td>Second</td>
<td>51</td>
<td>30.0</td>
</tr>
<tr>
<td></td>
<td>Third</td>
<td>38</td>
<td>22.4</td>
</tr>
<tr>
<td></td>
<td>Fourth</td>
<td>15</td>
<td>8.8</td>
</tr>
<tr>
<td></td>
<td>Fifth</td>
<td>7</td>
<td>4.1</td>
</tr>
<tr>
<td></td>
<td>Total (n)</td>
<td>170</td>
<td>100.0</td>
</tr>
<tr>
<td>4.</td>
<td>Age</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>18-22</td>
<td>152</td>
<td>89.4</td>
</tr>
<tr>
<td></td>
<td>23-27</td>
<td>14</td>
<td>8.2</td>
</tr>
<tr>
<td></td>
<td>28-32</td>
<td>3</td>
<td>1.8</td>
</tr>
<tr>
<td></td>
<td>33-</td>
<td>1</td>
<td>0.6</td>
</tr>
<tr>
<td></td>
<td>Total (n)</td>
<td>170</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Note: Number of the respondents (n = 170).

Demographics Data of the Interviewees

Face-to-face interviews were conducted with twenty-three individuals. These include 12 Kuwaiti in-service art teachers at public schools, 3 Kuwaiti art supervisors from the Ministry of Education (MOE), 6 Kuwaiti art education faculty members from the Department of Art Education at the CBE, and 2 Kuwaiti art education faculty members from the Department of Art and Design (AAD) and from the Department of Curriculum and Instruction at the Kuwait University. The demographics of the interviewees are summarized in Table 3.

72
<table>
<thead>
<tr>
<th>Sample n</th>
<th>Sex</th>
<th>Age</th>
<th>Level of Education</th>
<th>Teaching Experience</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>M</td>
<td>23 - 29</td>
<td>2 years Tech Colge</td>
<td>1 - - - - P h D -</td>
</tr>
<tr>
<td></td>
<td>F</td>
<td>30 - 39</td>
<td>2 years Art Ed</td>
<td>1 1 9 1 - - - 6 - 2 4 -</td>
</tr>
<tr>
<td>In-service</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Art Teacher</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>at MOE n = 12</td>
<td>4</td>
<td>7 - 1 -</td>
<td>B Intor Dsgn</td>
<td>5 - 11 - 18 - 26 - 40 +</td>
</tr>
<tr>
<td>Art Education</td>
<td></td>
<td>8 - 1 - 1-2</td>
<td>B Art Ed</td>
<td>1 - - - - 6 - 1 1 1 -</td>
</tr>
<tr>
<td>Supervisor</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>at MOE n = 3</td>
<td>2</td>
<td>- - 1 - 2</td>
<td>B F A M A M F A</td>
<td>1 - 2 2 2 1</td>
</tr>
<tr>
<td>Art Education</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Faculty</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>at CBE n = 6</td>
<td>6</td>
<td>- - 1 2 3</td>
<td>2 1 2 1 - 2 2</td>
<td>2 1 1</td>
</tr>
<tr>
<td>Art Education</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Faculty</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>at KU n = 2</td>
<td>2</td>
<td>- - 1 1 -</td>
<td>- - - - - - - 2 - 2</td>
<td>- - - -</td>
</tr>
</tbody>
</table>

Demographic Data of the Interviewees (n = number of interviewees)
Among the in-service Kuwaiti art teachers, 8 were females ($n = 8$), and 4 were males ($n = 4$). Seven of the interviewees were between 23 and 24 years of age, 4 interviewees were between 43 and 48 years of age, and 1 interviewee was in her late thirties. Six of the in-service teachers had 17 to 25 of teaching experiences, 1 had 2 years of experience and 5 had 1 year of teaching experience. Nine interviewees held bachelor’s degrees in art education, 1 held a diploma with 2 years of college work, 1 held a BFA, and 1 held a bachelor’s degree in interior design.

Two of the art supervisors at the MOE who were interviewed were male; 1 was female. Two of these interviewees were 55 and 56 years of age, and 1 was 41 years of age. They all held a bachelor degree in art education. One of these interviewees had 30 years of teaching experiences, 1 had 23 years of teaching experiences, and 1 had 16 years of teaching experiences.

Of the College of Basic Education faculty members all 6 of the interviewees were males. Four of these interviewees were between from 38 and 50 years of age, and 2 interviewees were between 60 and 65 years of age. Two held a PhD in art education from the US, 2 held a MA from the US, 1 held a MFA from the US, and 1 held a diploma with 2 years of technical college. Three interviewees had 20 to 25 years of teaching experiences, 1 had 2 years of teaching experiences, 1 had 18 years of teaching experiences, and 1 had 41 years of teaching experiences.

Both of the interviewees from the KU were males. These interviewees were between 38 and 43 years of age, both held a PhD in art education from the US; each had between eight to nine years of teaching experiences.
Findings

The findings of the study will be presented in relation to the specific research questions. Both quantitative and qualitative data will be included where appropriate.

Research Questions 1 and 2

Two research questions dealt with pre-service Kuwaiti art teachers: (1) What knowledge, skills, and experiences do pre-service Kuwaiti art teachers have regarding the enameling arts? and (2) What are the attitudes and perceptions of pre-service Kuwaiti art teachers regarding what pre-service teachers should know and be able to do with regard to teaching the enameling arts? The primary source of data for gathering information regarding these questions was a survey questionnaire which was administered to the entire population of pre-service Kuwaiti art teachers at the College of Basic Education.

Three approaches to gathering information with the questionnaire were used. The first used close-ended questions with ordered response choices (Salant & Dillman, 1994): The respondents were asked to select their specific answer from a list provided consisting of *Very Good*, *Good*, *Fair*, *Not Good*, and *Don’t Know*. The second used a simple summated rating scale that had only one concept (Yes/No) (Babbie, 1990, 2007; Salant & Dillman, 1994) to ask respondents about their knowledge and skills in traditional and contemporary enamelling techniques, and the relationships between enameling and the Islamic culture. The third approach involved the use of partially close-ended questions and additional spaces for comments and suggestions which allowed the respondents an opportunity to offer additional information.

Seventeen items sought information about the respondent’s knowledge, skills, and
experiences. Eight items (12, 13, 14, 15, 16, 17, 18, and 19) used the first approach. Eleven of the items (5, 6, 7, 8, 9, 10, 20, 21, 22, 23, and 24) asked respondents to give a “Yes” or “No” answer and one item (10) asked for additional information if the answer was yes. One item (11) requested information about the number of classes that the students had taken in metals. Additional space for comments was provided at the end.

**Knowledge, Skills, & Experiences**

Tables 4 and 5 summarize the results of the knowledge, skills, and experiences data. With regard to general knowledge and skills about metalsmithing, more than 50% indicated that their general knowledge and skill was “Good” to “Very Good”, while the majority indicated that their knowledge about and skills in the enameling arts was “Fair” to “Not Good” or that they “Did Not Know”. Slightly more than 5% of the respondents (n = 10) indicated that they had “Good” or “Very Good” knowledge of traditional techniques. More than 80% of the respondents indicated that their information about enameling in the metalsmithing course at the CBE was “Fair”, “Not Good” or they “Did Not Know”. More specifically, the majority of the respondents (95%) indicated their knowledge of traditional techniques was “Fair”, “Not Good” or they “Did Not Know”. Similar results were found for knowledge of contemporary enameling techniques and knowledge of the history of enameling.

As shown in Table 5, more than 97% of the respondents indicated that they did not know any kinds of traditional or contemporary enameling techniques. Slightly more (12.4%, n = 21) believed that there were relationships between enameling and Islamic culture. Likewise, more than 94% of the respondents indicated that they did not learn
skills in traditional and contemporary enameling techniques in their education in their K-12 school or the CBE.
Table 4

*Knowledge and Skills about the Enameling Arts*

<table>
<thead>
<tr>
<th>#</th>
<th>Question</th>
<th>Frequency and Percentage of Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>12</td>
<td>My metalsmithing art knowledge in general</td>
<td>n 20 65 29 11 45 170</td>
</tr>
<tr>
<td></td>
<td></td>
<td>% 11.8 38.2 17.1 6.5 26.5 100</td>
</tr>
<tr>
<td>13</td>
<td>My metalsmithing art skills in general</td>
<td>n 30 50 32 5 53 170</td>
</tr>
<tr>
<td></td>
<td></td>
<td>% 17.6 29.4 18.8 2.9 31.2 100</td>
</tr>
<tr>
<td>14</td>
<td>Information about enameling art in the metalsmithing course at the CBE</td>
<td>n 4 24 27 21 94 170</td>
</tr>
<tr>
<td></td>
<td></td>
<td>% 2.4 14.1 15.9 12.4 55.3 100</td>
</tr>
<tr>
<td>15</td>
<td>My knowledge about enameling art in general</td>
<td>n 4 19 33 24 90 170</td>
</tr>
<tr>
<td></td>
<td></td>
<td>% 2.4 11.2 19.4 14.1 52.9 100</td>
</tr>
<tr>
<td>16</td>
<td>My skills about enameling art in general</td>
<td>n 7 15 25 19 104 170</td>
</tr>
<tr>
<td></td>
<td></td>
<td>% 4.1 8.8 14.7 11.2 61.2 100</td>
</tr>
<tr>
<td>17</td>
<td>My knowledge regarding the traditional techniques in the enameling art</td>
<td>n 3 7 16 23 121 170</td>
</tr>
<tr>
<td></td>
<td></td>
<td>% 1.8 4.1 9.4 13.5 72.2 100</td>
</tr>
<tr>
<td>18</td>
<td>My knowledge regarding the contemporary techniques in the enameling art</td>
<td>n 4 10 21 17 118 170</td>
</tr>
<tr>
<td></td>
<td></td>
<td>% 2.4 5.9 12.4 10.0 69.4 100</td>
</tr>
<tr>
<td>19</td>
<td>My knowledge about the history of enameling</td>
<td>n 3 10 13 18 126 170</td>
</tr>
<tr>
<td></td>
<td></td>
<td>% 1.8 5.9 7.6 10.6 74.1 100</td>
</tr>
</tbody>
</table>
Table 5

Knowledge, Skills, and Experiences about the Enameling Arts

<table>
<thead>
<tr>
<th>#</th>
<th>Question</th>
<th>Frequency and Percentage of Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Yes</td>
</tr>
<tr>
<td>7.</td>
<td>Have you ever experimented with enameling at home?</td>
<td>n</td>
</tr>
<tr>
<td></td>
<td></td>
<td>8</td>
</tr>
<tr>
<td></td>
<td></td>
<td>%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>4.7</td>
</tr>
<tr>
<td>8.</td>
<td>Have you ever tried out enameling at school in the art classes?</td>
<td>n</td>
</tr>
<tr>
<td></td>
<td></td>
<td>22</td>
</tr>
<tr>
<td></td>
<td></td>
<td>%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>12.9</td>
</tr>
<tr>
<td>9.</td>
<td>Have you ever experimented with enameling at College?</td>
<td>n</td>
</tr>
<tr>
<td></td>
<td></td>
<td>37</td>
</tr>
<tr>
<td></td>
<td></td>
<td>%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>21.8</td>
</tr>
<tr>
<td>10.</td>
<td>Have you ever received any type of enameling training?</td>
<td>n</td>
</tr>
<tr>
<td></td>
<td></td>
<td>5</td>
</tr>
<tr>
<td></td>
<td></td>
<td>%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2.9</td>
</tr>
<tr>
<td>20.</td>
<td>Do you know any kinds of traditional enameling techniques?</td>
<td>n</td>
</tr>
<tr>
<td></td>
<td></td>
<td>4</td>
</tr>
<tr>
<td></td>
<td></td>
<td>%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2.4</td>
</tr>
<tr>
<td>21.</td>
<td>Do you know any kinds of contemporary enameling techniques?</td>
<td>n</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1.2</td>
</tr>
<tr>
<td>22.</td>
<td>Are there any relationships between enameling and Islamic culture?</td>
<td>n</td>
</tr>
<tr>
<td></td>
<td></td>
<td>21</td>
</tr>
<tr>
<td></td>
<td></td>
<td>%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>12.4</td>
</tr>
<tr>
<td>23.</td>
<td>Did you learn some skills in traditional enameling techniques?</td>
<td>n</td>
</tr>
<tr>
<td></td>
<td></td>
<td>5</td>
</tr>
<tr>
<td></td>
<td></td>
<td>%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2.9</td>
</tr>
<tr>
<td>24.</td>
<td>Did you learn some skills in contemporary enameling techniques?</td>
<td>n</td>
</tr>
<tr>
<td></td>
<td></td>
<td>10</td>
</tr>
<tr>
<td></td>
<td></td>
<td>%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>5.9</td>
</tr>
</tbody>
</table>
With regard to items 20, 21, 23, and 24, no written responses were found for the respondents due to the fact that they lacked the needed knowledge and skills regarding traditional and contemporary enameling techniques. Little information was found for question number 23, which asks “Are there any relationships between enameling and Islamic culture?”. Of the 170 respondents, only one respondent (0.6%) reported that “Yes, enameling art was used in some designs in the historical Islamic arts”. It is very clear from these results that a lack of knowledge in the Islamic arts and the enameling arts exists among a large portion (99.4%) of the pre-service art teachers surveyed.

As show in Table 5, almost all students surveyed (97.1%, \(n = 165\)) had never had any training in enameling. More than 75% had never experimented with enameling at home (95.3%, \(n = 162\)), at school (87.1%, \(n = 148\)) or at college (78.2%, \(n = 133\)). This general lack of experience with the enamelling arts is not unexpected, given the fact that the College of Basic Education only introduces the enamelling arts in introductory metals courses in the pre-service curriculum.

The respondents’ self-reported general knowledge about general metalsmithing is more extensive than their knowledge about the traditional and contemporary enamelling arts and their history and relationship to the Islamic culture. Similarly, the respondents’ general skills and experiences in metalsmithing are much more extensive than their skills and experiences in traditional and contemporary enamelling techniques. In examining the respondents’ practices, a general lack of enamelling experiences is also found either inside or outside of the college.

In summary, the findings support the belief that there is a general lack of basic
knowledge, skills, and experiences in the enameling arts among the pre-service art teachers at the College of Basic Education. It is clear that the pre-service teachers at the CBE have received little education about the enameling arts in the Kuwaiti educational institutions, K-16. In thinking about a curriculum in the enameling arts for the CBE, it is clear that it must begin at the most elementary level in the Metal I (AE 171) course or in a specialized course in enameling.

**Attitudes and Perceptions**

Of the 170 participants who answered the survey questionnaire, 89 (52.4%) had not attended any metal classes, 66 (38.8%) had attended one metal class, and 15 (8.8%) had attended two metal classes. About two-thirds (67.1%, \(n = 114\)) of the respondents indicated that the pre-service art teachers were not well prepared in the metal classes at the CBE, whereas about a third (32.9%, \(n = 56\)) of the respondents indicated that the pre-service art teachers were well prepared in metal classes at the CBE. More specifically, the majority 62.4% (\(n = 106\)) reported that they had never heard about enameling (Table 6).
Table 6

Perceptions of Pre-service Art Teachers

<table>
<thead>
<tr>
<th>#</th>
<th>Question</th>
<th>(f)</th>
<th>(%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>Do you think that the pre-service art teachers are well-prepared in metal classes at the College of the Basic Education?</td>
<td>n = 170</td>
<td>100.0%</td>
</tr>
<tr>
<td></td>
<td>Yes</td>
<td>56</td>
<td>32.9</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>114</td>
<td>67.1</td>
</tr>
<tr>
<td>6</td>
<td>Have you ever heard of enameling?</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Yes</td>
<td>64</td>
<td>37.6</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>106</td>
<td>62.4</td>
</tr>
<tr>
<td>11</td>
<td>How many metal classes did you complete in the College of Basic Education?</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Not attended until now</td>
<td>89</td>
<td>52.4</td>
</tr>
<tr>
<td></td>
<td>One class</td>
<td>66</td>
<td>38.8</td>
</tr>
<tr>
<td></td>
<td>Two classes</td>
<td>15</td>
<td>8.8</td>
</tr>
</tbody>
</table>

Note: Percentage (%), and Number of the respondents (n = 170).

While the findings support the belief that there is a lack of awareness (perception) among the surveyed Kuwaiti pre-service art teachers about the enameling arts, there is some discrepancy between the reported knowledge, skills and experiences and the perceptions about preparation in the enameling arts.

In the additional comments and suggestions section at the end of the survey, some of the respondents reported that they did not have any perceptions regarding enameling arts as evidenced in the following statements. “I hope that the Public Authority for Applied Education and Training (PAAET) offers this subject because I have never heard about it”; “I would like to know the meaning of enameling arts”; and “I did not hear about enameling arts”. Similar comments were made by other pre-service art teachers. However, other respondents revealed their ignorance about enameling arts but wished to
learn about this art. For example, one pre-service art teacher expressed, “I would like to know about enameling arts because I have no idea about it”. Such statements indicate that these respondents did not receive an education in the enameling arts at the CBE.

The last section in the survey questionnaire involved the use of 5-point Likert scale (strongly agree as SA, agree as A, disagree as D, strongly disagree as DS, Undecided as U or DK (don’t know) (Babbie, 1990, 2007) to evaluate the Kuwaiti pre-service art teachers’ attitudes towards enameling arts. Additional space for comments and suggestions was provided. Twelve items (25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, and 36) sought information about the respondents’ attitudes towards enameling arts. Table 7 shows the results.

Positive, negative, and uncertain attitudes were reported. Because of the lack of experiences in enameling, students had no perception of whether enameling techniques are exciting (72.4%), whether enameling is too complicated for them to understand (70.6%), whether or not they would feel comfortable using enamels (70.6%), whether or not enameling would be a favorite subject for them (63.5%) or whether they would prefer to take an enameling class rather than another art class (52.4%). Similarly, students had little perception of whether enameling could change their artistic vision towards art (55.3%) or advance their educational profession (51.2%). Because of the lack of skills, knowledge, and experiences, they were unsure of whether they would be afraid of working with enameling techniques (56.5%) or whether enameling could help them explore new techniques and new colors (51.2%). It appears that the majority of the respondents have uncertain attitudes about their involvement with the enameling arts.
Nevertheless, the students seemed to have a generally positive attitude toward the enameling arts. More than half felt that enameling could provide them with positive art experiences (51.2%, $n = 87$). Slightly less than half indicated that they enjoyed seeing enameling arts (48.8%, $n = 83$), and more than half indicated that they would like to learn more about enameling arts (55.8%, $n = 95$). Apparently, almost half of the respondents have positive attitudes toward the enameling arts.
**Table 7**

*Shows the Enameling Art Attitudes of the Respondents*

<table>
<thead>
<tr>
<th>#</th>
<th>Statement</th>
<th>SA</th>
<th>A</th>
<th>DK</th>
<th>D</th>
<th>SD</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>25</td>
<td>Enameling techniques are exciting</td>
<td>n</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>n 170</td>
</tr>
<tr>
<td></td>
<td></td>
<td>%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>100</td>
</tr>
<tr>
<td>26</td>
<td>Enameling art information is not a favorite subject for me</td>
<td>n</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>n 170</td>
</tr>
<tr>
<td></td>
<td></td>
<td>%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>100</td>
</tr>
<tr>
<td>27</td>
<td>Enameling is too complicated for me to understand</td>
<td>n</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>n 170</td>
</tr>
<tr>
<td></td>
<td></td>
<td>%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>100</td>
</tr>
<tr>
<td>28</td>
<td>Enameling can change my artistic vision towards art</td>
<td>n</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>n 170</td>
</tr>
<tr>
<td></td>
<td></td>
<td>%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>100</td>
</tr>
<tr>
<td>29</td>
<td>Enameling art can advance my educational profession</td>
<td>n</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>n 170</td>
</tr>
<tr>
<td></td>
<td></td>
<td>%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>100</td>
</tr>
<tr>
<td>30</td>
<td>Enameling can provide me with art experiences</td>
<td>n</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>n 170</td>
</tr>
<tr>
<td></td>
<td></td>
<td>%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>100</td>
</tr>
<tr>
<td>31</td>
<td>I enjoy seeing enameling art</td>
<td>n</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>n 170</td>
</tr>
<tr>
<td></td>
<td></td>
<td>%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>100</td>
</tr>
<tr>
<td>32</td>
<td>I am afraid of working with enameling techniques</td>
<td>n</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>n 170</td>
</tr>
<tr>
<td></td>
<td></td>
<td>%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>100</td>
</tr>
<tr>
<td>33</td>
<td>I like/ would like to learn more about Enameling</td>
<td>n</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>n 170</td>
</tr>
<tr>
<td></td>
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<td>%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>100</td>
</tr>
<tr>
<td>34</td>
<td>I feel comfortable when I want to use Enamels</td>
<td>n</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>n 170</td>
</tr>
<tr>
<td></td>
<td></td>
<td>%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>100</td>
</tr>
<tr>
<td>35</td>
<td>Enameling can help me explore techniques and new colors</td>
<td>n</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>n 170</td>
</tr>
<tr>
<td></td>
<td></td>
<td>%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>100</td>
</tr>
<tr>
<td>36</td>
<td>I prefer to take enameling class rather than other art classes</td>
<td>n</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>n 170</td>
</tr>
<tr>
<td></td>
<td></td>
<td>%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>100</td>
</tr>
</tbody>
</table>

*Note: Percentage (%), and Number of the respondents (n = 170).*
In the additional comment and suggestions space, slightly over half ($n = 86$) of the 170 respondents wrote nothing. Of those who did write something, 76 were positive statements while 8 were negative statements. A large proportion of the respondents making additional comments were females ($n = 82$); only 2 males made comments. It is interesting to note that females had more positive attitudes than males towards art in this study. These results are similar to conclusions with other reported studies (Eisner, 1966; Pauler, 1970). Based on the findings of this study and the two previous studies, it appears that feminine preferences and their positive attitudes are connected to house art and crafts (Slee, 1968) and to women’s accessories, interests, and needs. One female pre-service art teacher noted, “Firstly, enameling is considered one of the most beautiful arts in metal works. Secondly, I would like to see the development of enameling arts in Kuwait”. Several female pre-service art teachers stated similar positive attitudes. Interestingly, one female student wrote, “On the behalf of the female students at this college, we would like to learn about enameling arts in the art education program”. Others also wanted to see more offerings in the enameling arts whether as an elective or a compulsory class. An eagerness and excitement for learning about the enameling arts was prevalent among the comments. There was a strong belief that studying the enameling arts would increase their artistic abilities. These results support the fact that pre-service teachers have positive attitudes toward the enameling arts. While mostly positive attitudes were found, a few negative attitudes were also found. The comments clearly indicated that these students were simply ignorant about the subject, had a large course work load, or some may even have had a closed mind about learning new art skills in the enameling arts. However, in
order to change or replace these attitudes, a careful series of art experiences can be planned (Paula, 1986).

Summary and Discussion

The findings from the survey of the pre-service Kuwaiti art teachers make it very clear that the majority of the respondents have little knowledge, skills, or experiences with the enameling arts. In contrast, they seem to be much better versed and much more experienced in general metals. Similarly, they had few perceptions about the enameling arts. As already indicated, these outcomes are similar to what Chapman (1979), Perfetti (1968), and Widmar (1985) have found in the enameling art area in general. These findings are not surprising given the fact that the respondents have not been exposed to the enameling arts in either their K-12 or college education. While there was a good deal of indecision with regard to attitudes about the enameling arts, many did express enthusiasm and eagerness to learn more in this area. It seems clear from these findings that any initial course in the enameling arts that is included in the pre-service art teacher program at the College of Basic Education must be a very basic one.

Research Questions 3, 4, 5, 6, and 7

Five of the research questions dealt with art education practitioners: 12 in-service Kuwaiti art teachers at the Ministry of Education (MOE), 3 art education supervisors at the MOE, 6 art education faculty members at the College of Basic Education (CBE), and 2 art education faculty members at the Kuwait University. Data were collected from this group with face-to-face interviews. The questions focused on two major areas: their knowledge, skills, and experiences, and their perceptions, and attitudes about the benefits
of studying enameling and the teaching of enameling in the secondary schools, in pre-service teacher education, and in-service and continuing education programs. The data obtained from the face-to-face interviews were analyzed for each group separately.

With regard to experiences, knowledge, and skills in the enameling arts, the researcher was interested in what each interviewee personally knows about enameling techniques, both traditional and contemporary, as well as the history of enameling, including its relation to the Islamic culture. Also of interest was where they gained the knowledge they had. Each interviewee’s attitudes and perceptions about four areas of the enameling arts was also of concern for this study: (a) the benefits and barriers of studying the enameling arts; (b) the role that the enameling arts should have in secondary education; (c) the role that the enameling arts should have in pre-service education; and (d) the role that the enameling arts should have in in-service and continuing education.

With regard to secondary schools, of concern were the interviewees’ perceptions and attitudes about whether the enameling arts could be taught at that level or whether it was important to teach them. The questions pertaining to pre-service education focused on the program at the College of Basic Education (CBE). Of specific concern was whether the CBE program covers all aspects of art education and whether the current pre-service art teacher program needs to be changed. With regard to the enameling arts, the interviewees’ perceptions about what pre-service teachers needed to know and be able to do were of paramount interest. Related areas of interest were whether current CBE students were prepared to teach in this area and whether or not there needed to be a course in the enameling arts in the curriculum. Finally, the study sought to determine the
interviewees, except for the CBE and KU art education faculty members, attitudes and perceptions about the need for in-service and continuing education in the enameling arts. The presentation of the analysis of the face-to-face interviews will be framed within these parameters.

Research Questions 3, 4, and 5

In-service Kuwaiti Art Teachers at the MOE

Three research questions are related to the in-service Kuwaiti art teachers at the Ministry of Education (MOE). They were (3) What knowledge, skills, and experiences do in-service Kuwaiti art teachers have regarding the enameling arts? (4) What are the perceptions and attitudes of in-service Kuwaiti art teachers regarding what pre-service teachers should know and be able to do with regard to teaching the enameling arts? and (5) What are the attitudes and perceptions of in-service Kuwaiti art teachers regarding the enameling arts in the secondary public schools and the College of Basic Education?

Knowledge, Skills, & Experience

With regard to the experience, knowledge, and skills of in-service Kuwaiti teachers at the MOE, all of the interviewees indicated that they felt that they knew nothing about contemporary and traditional enameling techniques. Only a few indicated that they had had any experience with enameling techniques. Five of the 12 interviewees (J, A, E, F, and K) mentioned that they had had a little experience or some training regarding the enameling arts. One ceramist and art educator with 20 years of teaching experiences (Interviewee J) commented that he had basic experiences in enameling arts during his BFA studies in the USA. Another art educator (Interviewee A) with 25 years
of teaching experience noted that she had also had some basic experiences in the enameling arts when she enrolled in one of the professional development workshops in metalsmithing and enameling arts at the MOE. Interviewee E pointed out that she had received basic training at college, and interviewee F stated that she had had some training at home. Interviewee K indicated that he had experimented with enameling and copper in the Bayt-Lothan for Arts and Crafts in Kuwait. While a few of the in-service teachers had had some limited experiences with the enameling arts, it is clear that all of the in-service teachers at the MOE lack the knowledge, skills, and experiences in contemporary and traditional enameling arts needed to teach them effectively in the schools.

The situation was not very different with regard to their knowledge of the history of the enameling arts. When asked “What do you know about enameling arts and its history?” little information was forthcoming. Three of the 12 in-service teachers had some knowledge about the history of the enameling arts. Interviewee K responded, “I think that enameling has a great art history in the Islamic arts, especially in some historical Islamic eras”. Interviewee L, a ceramist, commented, “Enameling is a technique in which color oxides are added to be fused on the metal surface in the kiln. I think that enameling arts are used in the Islamic arts and ancient Egyptian arts and especially this kind of art can be seen in jewelry making”. Another interviewee (I) stated, “I really think that ancient Egyptians used enameling to decorate their objects.” Interestingly, few of the interviewees thought that the enameling arts were important in Egyptian history. However, according to Bates (1951, 1975), Day (1907), and Werge-Hartly (2002), there is not any proof about fused enamels being used by the ancient
Egyptians in objects and or jewelry, but stones, glass, and different colors were used by Egyptian artists to inlay items and/or jewelry (Bates, 1951, 1975; Scribner, Welford, & Armstrong, 1877). Thus, the in-service art teachers who thought they knew something about the history of the enameling arts actually had erroneous information.

In general, the majority of in-service Kuwaiti art teachers have virtually no knowledge of either techniques or the history of the enameling arts nor have they had experience with it. This is a revealing finding given the fact that enameling is considered one of the art components in the art education curriculum at the Ministry of Education (1990/1991).

All 12 in-service Kuwaiti art teachers interviewed were asked whether there is any relationship between enameling art and Islamic culture, or does enameling art relate to Islamic culture? And how? They all responded affirmatively, indicating that they believe that the enameling arts are related to Islamic culture. Interviewee K said that “Good enameling examples from Islamic culture can be seen in some cups, weapons, and copper plates”. Interviewee J commented, “I believe that in the enameling process you can see the metallic glitter that the Islamic artists used in the Arab world such as Iraq, Syria, and Egypt”. He further noted, “You may find enameling arts existed in vases, pots, and daggers from the Islamic culture”. Interviewees (I, L, F, E, C, D, B, G, and H) also offered good examples of existing enameling art in the Islamic culture. Only 2 interviewees (A and J) noted that examples of enameling arts can be found in the Dar Al-Athar Al-Islamiyyah publications and exhibitions in Kuwait. The findings support the fact that the respondents understood the relationship between enameling art, Islamic art,
and culture. As indicated in the review of related literature, not only is enameling art a part of the Islamic culture, especially in the Indian culture (Bloom & Blair, 1997; Jenkins, 1983; Keene & Kaoukji, 2001; Qadome, 1987), but it is also related to other cultures such as Greek, Celtic, Byzantine, German, Italian, Chinese and Japanese, French, English, and Russian (Barsali, 1969; Bates, 1951, 1975; Darty, 2004, De Koningh, 1927).

**Attitudes and Perceptions**

**Benefits and barriers.** All 12 in-service teachers had positive attitudes toward the enameling arts. They believed that one of the major benefits of engaging students in the enameling arts would be to improve their attitudes towards art, noting that it will help students to be more “knowledgeable and appreciate the visual arts more”. For example, interviewee L commented that “… it will improve the students’ attitudes towards art, and it will assist them to have further appreciation towards arts in general and enameling arts in particular.” All other interviewees responded with similar positive comments. In short, all in-service Kuwaiti art teachers believe that there are benefits from studying the enameling arts and that student attitudes toward art will be improved in the process.

Other benefits of studying the enameling arts were also identified. Interviewees (I and K) commented that enameling is used to decorate and protect metal from oxidization. Interviewees K noted that, it is used to enhance “the aesthetic qualities” of objects. Other interviewees had other opinions. For instance, 3 interviewees (A, J, and F) stated that it helps to gain new artistic experiences, while 2 interviewees (L and C) indicated that one of the benefits was related to the enhancement of interior design, fashion design, and jewelry design. Five of the interviewees (G, D, H, E, and B) indicated that they had no
idea about the benefits of studying the enameling arts. With more than half of the interviewees responding positively, one can conclude that there is receptiveness among in-service Kuwaiti art teachers at the MOE for including the enameling arts in the secondary school curriculum.

With regard to barriers to teaching the enameling arts, in-service teachers raised important concerns about the difficulties encountered when teaching the enameling arts in art classes. Even though these interviewees identified important issues that will be considered in preparing a content outline, they failed to provide details. One consistent recommendation was that safety be a part of the course. Safety precautions, for example, always deal with wearing appropriate gear such as a dust mask, goggles, apron, full face shield, and heat resistant gloves while mixing, applying powder enamels, spraying enamels, and operating kilns (Cockrell, 2004; McCann, 2003; Oltman, 1990; Rossol, 1994, 2001; Widmar, 1985) as well as using appropriate materials such as lead-free enamels (Darty, 2004; McCann, 2003; Oltman, 1990: Rossol, 1994, 2001). Due to the extremely hot atmosphere that is created by using the enameling kilns or furnaces, they should be placed in a well ventilated area (Cockrell, 2004; McCann, 2003; Oltman, 1990; Rossol, 1994, 2001).

Other barriers included the preparation of workshops and the required tools and materials. Only 2 interviewees (I and J) mentioned that a barrier was the availability of qualified and/or specialized art teachers who are capable of teaching enameling. Two interviewees (F and G) had no idea about the difficulties when teaching enameling art in the art classes. The identification of barriers by the in-service teachers raises some
important considerations that need to be considered in preparing a content outline for a
course in enameling for the College of Basic Education.

*Secondary schools at the MOE.* With regard to the need to teach enameling arts
at the secondary school level, all in-service teachers indicated that they believed that it
was an important area to teach. They offered major reasons why they thought the
enameling arts should be a part of secondary education. One in-service art teacher
(interviewee K) stated, “… I think it is very important, because it is related to our Islamic
history. In addition, this kind of art has two positive sides: one is functional benefits and
the other is aesthetic qualities. Moreover, enameling arts is considered one of the required
art contents that our students should learn at the secondary school levels”. Another art
teacher (Interviewee I) noted, “… I think that teaching enameling at the secondary school
levels is important because the art objectives from the MOE state that student should
learn about enameling arts in the secondary school levels…” . Other interviewees
responded with similar comments. It is clear that in-service teachers at the MOE support
the teaching of the enameling arts in the secondary schools. They believe that it is
important because it is considered one of the required art contents that students should

In queering in-service teachers about whether or not they thought that art teachers
can teach enameling at the secondary school levels the responses revealed some
important data. Ten interviewees (K, I, L, D, E, G, H, F, B, and C) believed that the
current art teachers cannot teach enameling arts due to the lack of preparation at the CBE.
Only 2 interviewees (J and A) responded that they think that art teachers can teach
enameling at the secondary school levels, but that this depends on the availability of enameling tools and enameling training experiences for the art teachers. The majority of the interviewees believed that the current art teachers at the MOE are not prepared to teach the enameling arts due to their lack of teacher preparation.

*Pre-service art program at the CBE.* The overwhelming majority of the in-service art teachers emphasized that the current art education curriculum at the CBE is missing some important areas in art education and that more change is needed. For example, interviewee C mentioned that “the program does not cover all aspects of art education. I think it’s a very weak art curriculum since it does not prepare students in proper ways; it is not aligned with the needs of the field training experiences, and it does not cover all art areas”. The findings of this study are consistent with similar studies reported in the literature. There are several published studies which recommend a review and changes to the current art education program in the College of Basic Education (Al-Mass, 1999; Al-Muhanna, 1989; Al-Najar, 2001; Al-Sayegh, 1998; Alnajdi, 2001). Alnajdi (2001) stated that “Pre-service art teachers at the College of Basic Education are not obtaining appropriate information to help them acquire sufficient skills to be able to teach certain kinds of art in the public schools” (p. 374). It appears that the pre-service art teachers at the CBE are not preparing the prospective art teachers for the future. In order to advance the art program, the majority of the interviewees felt that some new art courses would benefit the current art program. The data collected in this study support this contention. In-service art teachers at the MOE believe that there are some missing aspects in the current art education curriculum. Based on graduates’ comments, there are
deficiencies when compared to the standards published by the National Art Education Association (NAEA) (1994) which delineated “what every student should know and be able to do in the visual arts” (p. 14).

**Enameling arts at the CBE.** The interviewees were asked specifically about the pre-service preparation in the enameling arts at the CBE. Eleven interviewees (J, I, L, K, E, F, G, H, B, C, and D) stated that the student teachers are not well-prepared in the enameling arts at the CBE. For example, interviewee I stated, “… the pre-service art teachers are not well-prepared in the enameling arts at the CBE due to the lack of qualified and specialized art teachers to teach enameling arts at the CBE. Besides, I think that the CBE lacks needed tools, supplies, and enameling books to teach enameling arts”.

In summary, the overwhelming majority of the interviewees believed that the pre-service art teachers are not well-prepared in the enameling arts as a part of their preparation at the CBE.

Even though it was determined that students are not prepared well in the enameling arts at the CBE, it was also important to know if the in-service teachers thought it was important that the enameling arts be taught. Each interviewee was asked “In your opinion, do you think that the enameling arts are important for the art education curriculum at the CBE? Why?” All of the interviewees stated that the enameling arts are important for the art education curriculum at the CBE. Interviewees (J, L, I, A, B, C, D, E, F, G, and H) believed that enameling should be a part of the curriculum because it’s a part of the art education curriculum at the MOE. Including instruction in the enameling arts in the curriculum would allow student teachers to practice this art form before going
into the field training experiences at the MOE. Interviewee K commented, “Yes, it is important to prepare the pre-service art teachers in enameling arts because it is related to art history which educates us about our culture and other cultures”.

While it is very clear from the data collected that all in-service teachers at the MOE support the inclusion of the enameling arts in the art education curriculum at the CBE, it was also important to know if they thought that the information should be included in the current metals course’ or whether there should be a separate course in the CBE curriculum devoted to the enameling arts, and, if so, why if their response was positive. They were also asked what the course should include.

In general their responses indicated that they supported the need for offering a separate course. Only 1 interviewee (A) with 20 years of teaching experience did not believe that enameling should be separated from the Metal I and the Metal II courses at the CBE. Interviewee I noted, “… I believe that it is important to offer a course in enameling for the pre-service art teachers at the College of Basic Education, and there should be at least 2 enameling course levels in order to gain more knowledge and skills in this art”. Another interviewee (H) with 2 years of teaching experience, articulated why it should be included very clearly. She stated: “Yes, I believe that a course in enameling for the pre-service art teachers should be part of the art education program at the College of Basic Education because prospective art teachers should learn about art experiences in enameling since it is considered one of the necessary art topics in the art education classes for the secondary school levels at the MOE”.

While believing that a separate course should be included in the CBE pre-service
curriculum, the majority of the interviewees stated that they had no any idea about what should be included in such a course. Only 3 interviewees (L, J, and E) had some ideas about what should be included. Among the things that they mentioned were: the nature of enameling, the chemicals of enameling or color chemistry, functions of enameling, inlaying techniques, temperatures for enameling, its art history, how to use the required materials, how to teach all the enameling techniques, and how to use enameling on different surfaces. They also felt that hands-on experiences with the enameling arts were important.

While in-service teachers felt that pre-service teachers were not well prepared in the enameling arts and that there should be a course in the pre-service curriculum, they provided only limited information about what should be included in such a course. Hence, the data from the in-service teachers provide little assistance in actually formulating a content outline for an enameling course at the CBE.

In-service and continuing education at the MOE. In-service teachers’ attitudes and perceptions about the need for the enameling arts as a part of the in-service art teachers’ training at the MOE were examined. The interviewees were asked whether the Ministry of Education should support training and provide the needed courses in the enameling arts for the in-service art teachers. All indicated that the MOE should support the training and provide the needed courses in enameling arts for the in-service art teachers due to the lack of their preparation at the CBE. It is clear that all interviewees believe that in-service education in the enameling arts is important.

When asked if they thought there should be some advanced workshops in the
enameling arts and why, the overwhelming majority of the interviewees (A, B, C, D, F, G, H, I, J, K, and L) responded positively. One interviewee E had no idea about this topic. When asked what these workshops should include 5 of the Interviewees (B, C, G, J, and K) had suggestions, such as offering materials and teaching enameling techniques, color chemistry, history, and technical processes; whereas 4 (A, H, F, and D) had no idea what should covered in such a workshop.

Additional comments. At the end of the formal interview, each interviewee was asked if there were any additional comments that they would like to make. Six of the 12 interviewees made positive comments. Several reinforced that they thought the enameling arts should be a part of the education of pre-service art teachers. Some expressed a desire to learn about enameling arts through in-service courses in the MOE or through courses in the enameling arts at the CBE created specifically for in-service art teachers.

Summary and Discussion

The findings of the interviews with the in-service teachers support the belief that the majority of Kuwaiti in-service teachers at the MOE are not well-prepared and not well-qualified to teach the enameling arts in the Kuwaiti public schools due to their lack of knowledge, skills, and experiences. None indicated that they had experienced enameling arts during their studies at the CBE and felt that they were limited in their ability to teach the enameling arts due to this lack of preparation.

The overwhelming majority of the respondents believed that the current art education curriculum at the CBE needed to be changed or revised. This finding is
consistent with what other researchers have found. Al-Sayegh (1998) stressed that “Pre-service teacher education should be modified... Student curriculum needs revision” (p. 147). It is clear that the art teacher preparation program at the CBE is lacking in many aspects as evidenced by the fact that the graduates of this program encounter problems in their teaching due to the lack of their preparation to teach certain content areas of the art curriculum at the MOE. Because of this, both the prospective art teachers and the Kuwaiti students in the public school suffer from the lack of adequate and effective program learning outcomes.

All 12 in-service art teachers from the MOE who were interviewed highlighted the importance of the enameling arts in the art education curriculum at the CBE and in the secondary school levels because it is one of the required art experiences that the prospective art teachers should teach in the art classes at the MOE (General Art Education Supervision, 1999/2000; Ministry of Education, 1990/1991). Thus, they supported the inclusion of the enameling arts in the art education curriculum at the CBE.

This need is evident based upon the fact that the interviewees had little or no skills or knowledge in contemporary or traditional enameling techniques and had little information about the history of the enameling arts. Interestingly, they all expressed a belief that there was a relationship between the enameling arts and Islamic art although they had misinformation about this area. Al-Sayegh (1998) emphasized that the art education program does not provide its graduates with an adequate knowledge about Islamic art and culture and this study reinforces that idea, suggesting that there is a need to teach this relationship between the enameling arts and the Islamic culture.
While the vast majority of interviewees supported providing an advanced workshops in the metal enameling arts for professional development, less than half provided much information about what content should be taught. This is not surprising given the fact that the MOE training sessions for professional development provide basic instruction with limited content and experiences in the enameling arts (General Art Education Supervision, n.d.). Additionally, the lack of art teachers’ preparation at the CBE, especially in enameling arts, remains a problem. Thus, there is a need to revise the existing course description for the staff development and to offer solid art content which aligns with the required teaching materials in the art education curriculum at the MOE.

These findings indicate that while attitudes and perceptions about the enameling arts are very positive, the interviewed in-service art teachers’ lack of skills, knowledge, and experiences prevented them from providing input about what content should be included in a course in enameling for pre-service art teachers at the CBE.

Research Questions 6 and 7

Art Education Supervisors at the MOE

Three art education supervisors (O, P, and Q) at the Ministry of Education (MOE) were interviewed in an effort to ascertain their knowledge, skills and experience in the enameling arts as well as their attitudes and perceptions about what pre-service teachers should know and be able to do with regard to teaching the enameling arts?

**Knowledge, Skills, & Experience**

All of the art education supervisors indicated that they did not have any prior knowledge and skills and had not had any experience or training in the enameling arts. In
addition, they knew nothing or little about enameling arts and its history. On the contrary, they all had some basic knowledge about the relationship between the enameling arts and Islamic culture.

**Attitudes and Perceptions**

**Benefits and barriers.** All 3 interviewees (O, P, Q) agreed that study of the enameling arts improves the students’ attitudes towards art, noting that it will increase awareness and appreciation towards the arts and help students appreciate and value art more if they are exposed to other art areas. They also believed that teaching enameling techniques will enhance the students’ general skills and knowledge in art. Other benefits were also identified. Interviewee O commented that through studying enameling the students will acquire “knowledge about Islamic arts, Japanese arts, Chinese arts, European arts, art aesthetics and criticism, and art history”. It was readily apparent that the interviewees believed that there were benefits from studying the enameling arts.

While identifying benefits, they also noted some of the barriers to teaching the enameling arts: operating kilns, providing materials and necessary tools, as well as qualified art teachers.

**Secondary schools at the MOE.** The 3 art education supervisors supported teaching enameling arts for the Kuwaiti students in the secondary schools. They believe that it is very important because it is considered one of the major components in the art education core curriculum for the secondary school levels at the Ministry of Education (MOE).
Pre-service art program at the CBE. All of the art education supervisors from the MOE emphasized that the current art education curriculum at the CBE does not cover some important aspects in art education and that the curriculum needs to be modified and updated. They all agreed that the recent art education graduates from the CBE are not well-prepared to teach at the secondary school levels. In addressing this problem, they suggested that a few more art courses be added and that more time be provided for the internship experiences, noting that they believe that this will provide for better learning.

Enameling arts at the CBE. There was support from the 3 art education supervisors for teaching the enameling arts to the pre-service art teachers at the CBE. They stressed that enameling is an important part of Islamic art history as well as the art education curriculum at MOE. They believe that this should be done through the establishment of a new course in the enameling arts for the pre-service art teachers. In this respect, they emphasized that such preparation in enameling arts courses will allow the prospective art teachers the opportunity to better understand and teach the required materials in enameling arts that are required by the MOE for the public secondary schools.

The needed knowledge of enameling arts for the pre-service art teachers was also discussed. The supervisors identified the following items that should be included in an enameling course: art experiences in enameling, designing on metals, preparing the metal surfaces, mixing colors, enameling types, melting points for colors, operating kilns, firing temperatures, and decorating techniques like dipping, pouring, using brush, and sifting are some important information that the pre-service art teachers need to know and
be able to do.

In-service and continuing education at the MOE. All interviewed art supervisors at the MOE support training and workshops for the new graduates of the CBE to enhance their preparation, particularly in enameling arts, as required art content for the secondary school levels (Ministry of Education, 1990/1991; General Art Education Supervision, 1999/2000). Metal and enameling workshops for the in-service art teachers are needed to fill this gap. Interestingly, interviewee Q noted:

Currently, there is a new metal and enameling art course in the MOE. However, there are no Kuwaiti art teachers who know how to teach this kind of challenging art. Therefore, we chose an Egyptian art teacher from the MOE to offer a workshop to train in-service Kuwaiti art teachers. (Personal Interview, 2009)

This example confirms that the recent Kuwaiti graduates from the CBE lack essential knowledge and skills in enameling arts, and, therefore, the MOE appointed a non-Kuwaiti art teacher to train the Kuwaiti art teachers in this art area. While some non-Kuwaitis have preparation in enameling, the World Bank (1966) reported that in general 50% of the non-Kuwaiti teachers are not sufficiently well-trained.

Additional comments. Additional comments by the art supervisors were minimal. One interviewee (O) hoped that more attention would be given to enameling since many examples of the enameling arts exists in the Kuwaiti gold market, culture, and people’s life.
Summary and Discussion

While the supervisors indicated that they lacked basic skills, knowledge, and experiences in the enameling arts, they were able to identify some content that they felt should be included in a pre-service course in the enameling arts. They had little knowledge about the history of the enameling arts; however, they believe that Islamic art and culture is very well-known around the globe, even though there are still some missing aspects in the art education curriculum at the CBE. In reference to the relationship between the enameling arts and the Islamic culture, all 3 art supervisors had only general information; none of them could explain how, where, and when the enameling arts exist in the Islamic culture. Al-Sayegh (1998) stated that such emphasis of Islamic culture in the art education curriculum at the CBE would increase the awareness and appreciation of the visual arts as an important part of the Kuwaiti culture and heritage. Several art educators emphasize that teaching the visual arts should include teaching cultural heritage and traditions as a part of the art education program (Al-Najar, 2001; Al-Sayegh, 1998; Alnajdi, 2001; McFee, 1970; McFee & Degge, 1977).

The supervisors believed that the current art education curriculum at the CBE needed to be changed and improved. This position is consistent with what other researchers have found (Al-Mass, 1999; Al-Muhanna, 1989; Al-Najar, 2001; Al-Sayegh, 1998; Alnajdi, 2001). These interviewees also indicated that the current pre-service art teachers cannot perform efficiently and do not have enough experiences which will qualify them to teach at certain public school levels. This suggests that there is gap between the curriculum requirements by the MOE and the art teacher preparation
program at the CBE. In other words, there is disconnect and/or miscommunication between the CBE and the MOE regarding the art curriculum issues. As noted earlier by Al-Najar (2001), the art education objectives at the CBE and the MOE should be aligned for better learning outcomes.

Out of the need for a better art teacher preparation program and learning outcomes, the art supervisors strongly supported the importance of teaching and including a new course in enameling arts for the pre-service art teachers program at the CBE in order to enhance the current pre-service art teacher’s preparation in the enameling arts before they are placed in teaching positions.

Although these interviewees supported the integration of the enameling arts into the pre-service art teacher’s curriculum at the CBE, they did not offer many details about what kind of knowledge the pre-service art teachers should have in the enameling arts. They suggested that the curriculum should include some vital decorating techniques, including dipping, pouring, using a paintbrush, and sifting. They did not indicate whether these methods are considered contemporary enameling techniques or traditional techniques. The findings suggest that the supervisors do not have enough knowledge or experience to supervise the in-service art teachers in the public schools when teaching enameling arts.

In summary, despite that fact that these results showed that the interviewed art supervisors lack skills, knowledge, and experiences, they were interested and provided some information about what art content should be included in a course in enameling for pre-service art teachers at the CBE.
Art Education Faculty Members at the CBE

Six art education faculty members at the College of Basic Education were interviewed to determine what knowledge, skills, and experience they had had in the enameling arts and what their attitudes and perceptions were toward the enameling arts in general as well as their role in the public schools, and the pre-service teacher education program at the CBE.

Knowledge, Skills, & Experience

Five of the CBE faculty interviewed (R, S, U, W, T, and V) indicated that they did not have knowledge and skills in the enameling arts; only 1 interviewee (V) indicated that he had any information. Only 2 art education faculty members responded that they had had some experiences in enameling. Interviewee R stated that he learned about the enameling arts in Egypt during his undergraduate studies and that he took another basic course during his graduate studies in jewelry design in the U.S. Interviewees W, T, and V indicated that they had had a little experience in enameling. Overall, it is safe to conclude that the knowledge, skills, and experiences of the interviewed art education faculty at the CBE with the enameling arts are very limited. Furthermore, the majority of these interviewees did not receive any enameling experiences during their studies at either the undergraduate or graduate levels. This, in turn, has a negative effect on the performance of prospective art teachers when they are being supervised by art education faculty members in a practicum in the public schools.

While their knowledge, skills, and experiences about the enameling arts are limited, all of the art education faculty members at the CBE who were interviewed
indicated that there is, indeed a relationship between the enameling art and Islamic culture. However, most were not able to say how they are related. Only 2 art faculty members were able to provide examples of what this relationship is. Interviewee T mentioned that the connection can be found in Islamic jewelry, boxes, and copper cups. Interviewee R stated that “Yes, we can find enameling arts in the jewelry making pieces, because it is cheaper than putting in any gem stones. Besides, it gives the same effects of putting in gem stones”. This response offers the positive functional and economical advantages of enameling arts.

**Attitudes and Perceptions**

*Benefits and barriers.* All 6 interviewees (R, S, T, U, V, and W) had positive attitudes toward the enameling arts and about teaching Kuwaiti students about enameling arts in art education classes. They recognized that one of the major benefits of engaging students in the enameling arts would be to improve their attitudes towards art. In 1 question, “Do you believe that implementing an enameling art course into the core courses in the curriculum would elevate the pre-service art teachers’ productivity and effectiveness?” and “How?”, supportive responses were made. For example, interviewee V commented, “Yes, I believe that it will assist the students to value art and motivate them to create more art”. Other advantages of studying the enameling arts mentioned were the following: hands on activities in enameling arts help to gain experiences and increase artistic skills and knowledge in art; enameling as a method presents aesthetic qualities and promotes its function in decoration and commerce. A few pointed out that the enameling arts can be used for decorating jewelry. For example, interviewee R stated
that “we can find samples of enameling arts from our history in the jewelry making pieces. It has been used because it was cheaper than any gem stones. Enameling gives the same effects that gem stones do”. In reference to the barriers when teaching the enameling arts, the interviewees mentioned a number of things such as safety issues, preparation of the workshops, necessary supplies, good ventilation, and well-trained art teachers who are well-qualified to teach this kind of art.

*Pre-service art program at the CBE.* All 6 interviewees from the CBE stressed that the current art education curriculum does not cover all of the major aspects in art education and that it needs to be revised and updated. Some of these interviewees also suggested adding new courses and/or changing the content of some art courses in the art education curriculum, particularly the core contents of Metal I and Metal II, the content of Design I and II, and to add new jewelry making techniques. It is very clear that the art education curriculum at the CBE lacks many aspects of a comprehensive DBAE, up-to-date art education program.

All of the art education faculty members’ responses supported the inclusion of the enameling arts as a part of the art education curriculum at the CBE. Interestingly, all of the interviewees (R, S, T, U, V, and W) stated that it is very important to teach enameling to the pre-service art teachers at the CBE. For instance, interviewees (W and U) highlighted that enameling should be taught because it is considered one of the required pieces of art content in Metal I and Metal II. In addition, they added that the current art education program offer kilns, materials, and supplies for the pre-service art teachers to experiment with the enameling arts. Finally, they all (R, S, T, U, V, and W) agreed to
implement a new course in enameling arts at the CBE.

Only 2 of the six CBE faculty interviewed indicated what knowledge and skills the pre-service art teachers should have regarding the traditional and contemporary enameling arts. Interviewee V stated, “I think that using a brush to apply enamels on the metal surface is one of the contemporary enameling techniques. Besides, other skills can be achieved through the use of over-glaze, colored pencils for enameling, stencil, and champevé enameling techniques”. Interviewee W commented, “Enameling can be applied to the metal surface by etching, forging, or cutting by using a jewelers saw, and then we can cover the metal surface with colored enamels”. The interviews revealed that some of their knowledge regarding contemporary and traditional enameling techniques was erroneous. For example, one interviewee stated that “using a brush to apply enamels” is one of the contemporary enameling techniques. In fact, it has been used since the 12th century in the French town of Limoges (Bates, 1951; Morton, 1970; Scribner, Welford, & Armstrong, 1877; Von Neumann, 1961), and is considered one of the traditional enameling techniques. This same interviewee mentioned champevé, but apparently did not know that it is one of the common traditional enameling techniques in the Islamic culture, particularly in the Mughals era (Sharma & Vradarajan, 2004). However, he was correct in noting that over-glazes, colored pencils, and stencils are considered some of the common contemporary enameling techniques (Bates, 1951, 1975; Darty, 2004). Another interviewee noted that enameling can be done by etching and/or forging, but he did not differentiate which one of these methods is contemporary and which is traditional. The majority of the art education faculty at the CBE had little or no knowledge of what the
pre-service art teachers should learn in traditional and contemporary enameling arts.

The interviewees were asked about any elements of enameling arts that are included in the art history course (AE 194) in the art education program. The data clearly supports the fact that the art education faculty members at the CBE support and are eager to see the enameling arts as a part of the art history course in the CBE. All of the interviewees confirmed that there are not any elements of the enameling art history that are included. They were also asked whether or not they see the enameling arts as a part of the art history courses, and all agreed that they would like to see the enameling arts as a part of the art history course at the CBE. By imposing the value of the enameling arts in the art history course, the pre-service art teachers will be more aware of movements, artists, and styles in the enameling arts as well as other important factors such as social, economic, and political.

Additional comments. When asked for additional comments at the end of the interview, interviewee R commented, “Enameling is seen as a new discipline in this culture although it is related to our cultural heritage and traditions. Therefore, providing the necessary workshops in enameling arts will be very vital for the students in the MOE and the CBE, which suggests that enameling arts helps students increase their awareness and learn new and different aesthetic values in the visual arts.

Summary and Discussion

Most of the art education faculty members at the CBE had only basic knowledge and skills regarding the enameling arts even though enameling is considered an important part of Islamic art and culture and the art education curriculum at the MOE (General Art
Education Supervision, 1999/2000; Ministry of Education, 1990/1991). Only two had any experience in the enameling arts. Similarly, the faculty did not have extensive information about the relationship between enameling arts and Islamic culture although all stated that there is indeed a relationship between enameling arts and Islamic culture. Only two interviewees had basic knowledge about the function and usage of the enameling arts. In addition, none of the 6 interviewees indicated how, where, and when enameling arts existed in Islamic culture.

All interviewees’ comments indicated that engaging students in the enameling arts would improve their attitudes towards art. They also stated that adding an enameling arts course in the art curriculum would help the students to appreciate art more and inspire them to create art. All interviewees noted valuable but general issues regarding barriers and benefits when teaching the enameling arts. While they are positive and supportive about including the enameling arts in the pre-service curriculum, the findings would indicate that the majority of the Kuwaiti art education faculty members at the CBE are not well-prepared and not well-qualified to supervise the pre-service art teachers during their practicum in the Kuwaiti public schools with regards to issues that are related to the enameling arts.

All of art education faculty members from the CBE pointed out that the current art education curriculum at the CBE does not cover all of the major aspects in art education. They also recommended that this current art program needs to be modified and restructured. This is consistent with the findings of previous research. For instance, Al-Saygeh (1998) interviewed the chair of the Department of Art Education at the CBE and
he noted the following:

a) The art curriculum does not satisfy a special need for the students, b) teachers lack pedagogical experiences which may improve the application of the curriculum, c) the curriculum does not express the spirit of Kuwaiti culture, and d) the curriculum is only concerned with the fine details of art with little emphasis on Islamic art. (p. 75)

This suggests that the majority of CBE graduates encounter several limitations, including missing skills, to teach certain content areas that should be part of the art curriculum at the MOE. This is an expected result because such courses are not included in the pre-service art education program (Al-Mass, 1999; Al-Muhanna, 1989; Al-Najar, 2001; Al-Sayegh, 1998; Alnajdi, 2001). Specifically related to the history of the enameling arts, Al-Sayegh (1998) stated, Islamic art is “critically important, not only as an avenue of creative expression, but also as a means of maintaining important cultural traditions” (p. i). The inclusion of enameling arts in the art history, Metal I, and Metal II courses at the CBE would increase the awareness and appreciation of the visual arts as an important part of the Kuwaiti Islamic culture.

While the findings from the interviews with the art education faculty at the CBE reveal a great deal of support for including the enameling arts as a part of the curriculum, they were not able to provide much information about what they thought students should know and be able to do in this area. Thus, little technical information was found that will be useful in formulating the content outline for a course in the enameling arts.
Art Education Faculty Members at KU

Two art education faculty members at Kuwait University (KU) were interviewed to determine what knowledge, skills, and experience they had had in the enameling arts and what their attitudes and perceptions were toward the enameling arts in general as well as their role in the public schools, the pre-service teacher education program at the CBE, and at KU.

Knowledge, Skills, & Experience

Both art education faculty members (M and N) at KU did not have any experience or training in the enameling arts, and they did not know any types of traditional or contemporary enameling techniques. Although interviewee M defined enameling, described the aesthetic value of enameling arts, and stated basic information about the history of enameling, his response indicated that he had information with regards to enameling arts and its history in comparison to the extensive enameling arts literature (Barsali, 1969; Bates, 1951, 1975; Darty, 2004, De Koningh, 1927). It seems noticeable that there is a lack of basic skills, knowledge, and experiences among the interviewed Kuwaiti art education faculty members at KU about enameling arts.

These 2 interviewees also recognized that the enameling art is part of Islamic art and culture. On the other hand, neither of them indicated any example about how the enameling arts were transferred into the Islamic culture. As Lanier (1966) noted, “Art education cannot be a part of our cultural heritage if it does not accept and employ those means which technological change makes appropriate for other types of educational activity” (p. 72). This statement suggests the fact that this art discipline should be
connected to the Islamic cultural heritage. It is almost certain that these interviewees had some basic idea about the relationship between enameling art and Islamic culture.

Attitudes and Perceptions

Benefits and barriers. The interviewees’ responses showed that they had positive attitudes towards the enameling arts. They both agreed that the use of the enameling arts would improve the students’ attitudes towards art appreciation, and that teaching enameling techniques would increase the students’ skills and knowledge in art. Both interviewees were confident that more exposure to other areas in the visual arts is necessary to increase the students’ awareness of art. Other advantages of studying the enameling arts were also highlighted by these 2 interviewees. They mentioned some of the significant experiences that enameling can provide, including art appreciation and its relation to cultural heritage.

With regard to barriers in teaching the enameling arts, the interviewees from KU noted some important difficulties. They agreed on important topics concerning offering materials and tools, preparing well-qualified art teachers, and maintaining safety and health issues. These interviewees’ responses revealed necessary but general issues about the benefits and the difficulties when teaching enameling arts in art classes.

Pre-service art program at the CBE. Both interviewees from KU strongly emphasized that the current art education curriculum at the CBE does not cover all of the necessary aspects in art education and that the curriculum needs major modifications and enhancement. Interviewee M, for example, stated that “In short, the curriculum needs a major revision in terms of its content”. In addition, they noted that the existing art
education program does not prepare certified art teachers for the future. On the same issue, they proposed new art courses that are concerned with new technology and trends in the field of art education, which might add a new perspective to the conceptual and practical aspects of art education pedagogy in the 21st century. It is clear that the current art education program needs to be updated with the new trends in the field of art education.

*Secondary schools at the MOE.* With regard to the need to teach enameling arts at the secondary school levels, they said that it was an important area to teach and offered a major reason why they thought that enameling arts should be a part of secondary education. Both pointed out that students should practice every area in the visual arts in the Kuwaiti culture, including the enameling arts. However, 1 interviewee (N) did not recommend teaching this kind of art for the elementary level, but he supported teaching enameling for older students such as the secondary school levels (General Art Education Supervision, 1999/2000; Ministry of Education, 1990/1991). It is clear that the art education faculty members at KU support the value of teaching enameling arts at the secondary school levels.

*Enameling arts at the CBE.* The enameling arts were perceived as an important issue for the pre-service art teachers at the CBE among the interviewees from Kuwait University. They suggested that enameling arts courses should be initiated and taught along with its needed essential supplies at the CBE. These 2 art educators support the belief that a college education should provide and facilitate the practice and preparation of the learners with skills and knowledge that are experienced in the real world,

The idea of teaching and establishing an enameling art course at KU was also discussed. Both interviewees (M and N) stated that the Art and Design program and the Curriculum and Instruction program does not offer any enameling courses, but that they were interested to see enameling as a part of the university programs. Interviewee N commented that he would like to learn about enameling arts and then teach it in the teacher preparation classes at KU.

Additional comments. At the end of the interview, both interviewees added additional comments about enameling arts and pre-service art teacher education. Interviewee M made an interesting comment about the possibilities of utilizing digital technologies and contemporary themes in order to produce enameled objects.

Summary and Discussion

Interviewees (M and N) from KU have not received any training experiences in the enameling arts, and they were not able to identify any types of enameling techniques, either traditional or contemporary. These educators are not well exposed to these kinds of art because it is not related to their areas of specialty. The interviewees were able to identify important topics in the enameling arts and their relationship to Islamic culture, albeit limited.

The KU faculty members did not believe that the current art education curriculum at the CBE covers all the required aspects in art education; it needs major changes and improvement. According to interviewee M, “… the curriculum needs a major revision in
terms of its content”. This statement suggests that the content of the existing art curriculum does not respond to the requirements of the MOE nor new trends in the field of art education. Thus, it is not competitive with market needs, especially when considering developments in technology. They also noted that the current art program does not produce competent art teachers because its recent graduates do not know and are not able to do what a well prepared art teachers “should know and be able to do” in relation to the standards of the National Art Education Association (NAEA, 1994, p. 14). As Al-Najar (2001) stated, the existing art education program does not provide adequate training in studio art and does not consider adequate principles in curricular issues in art education.

These 2 interviewees noted some important benefits of studying the enameling arts, yet they did not mention any details about the difficult issues noted in the literature review. Interviewees (M and N) had positive attitudes towards the enameling arts. They supported teaching Kuwaiti students about enameling arts in the art education classes and initiating an enameling arts course for the pre-service art teachers at the CBE, as well as in Kuwait University in the future. As interviewee M commented, “The existence of enameling art encourages the students to be aware of the various artistic methods, techniques, and pedagogy that motivates more exploration in the visual arts”. This means that the college art program should equip students with the appropriate means to enable them to survive challenging real work spaces. In this manner, the inclusion of an enameling arts course would update students’ knowledge about new trends in the visual arts. By doing so, more information about the enameling arts should be stressed to
provide many opportunities through a variety of methodologies to explore, understand, describe, and create enameling arts appropriate for different educational levels. Although they supported the value of teaching enameling arts at the secondary school levels, they did not mention that enameling is considered as one of the necessary art classes that Kuwaiti students should be taught in the secondary school levels (General Art Education Supervision, 1999/2000; Ministry of Education, 1990/1991).

Even as the results from the interviews with the art education faculty at KU reveal a great support for including the enameling arts as a part of the curriculum, they were not able to provide information about what they thought students should know and be able to do in this area. Hence, not much information was found that will be useful in formulating the content outline for a course in the enameling arts.

Research Question 8

Supplementary Art Documents & Records

Research question 8 explored the extent to which enameling art content is reflected in art education documents at the Ministry of Education and at College of Basic Education, as well as in the publications of the Dar al-Atahr al-Islamiyyah. Several sources of data were utilized from the art education curriculum documents at the CBE, the MOE and the Dar al-Atahr al-Islamiyyah. They included the following:

Art Documents from the MOE

Art Documents from the MOE

Three documents from the MOE were analyzed. In the *Art Education Curriculum for Secondary and High School Levels* (1990/1991), enameling content was included in several statements in the metalsmith sections. At the secondary school level, enameling was stated in one short statement: “Utilize cold enameling within frames on flat surfaces” (*Art Education Curriculum for Secondary and High School levels, 1990/1991, p. 44*); At the high school level, enameling content was discussed in two statements: (a) “The
practice of enameling is controlled by the instructor which reflects appropriate design solutions, that is inspired by the learners’ own individual backgrounds in order to create works such as a key chain, medallion, accessories, and jewelry” (Art Education Curriculum Secondary for High school levels, 1990/1991, p. 79); and (b) “The instructors should explain the process of enameling. Enameling: put a thin wire and then attach it in order to fill the wire spaces” (Art Education Curriculum for Secondary and High school levels, 1990/1991, p. 79). The content from the Art Education Curriculum for Secondary and High School contains little information about enameling arts for the Kuwaiti public schools that is useful in determining a content outline for a course for pre-service teachers.

In the advanced Metalsmithing II (47) art course, enameling content is addressed. It provides information about the needed tools and materials, enameling colors like opaque and transparent, safety cautions, two types of enameling such as cold and hot with their procedures, as well as some applications to experiment with enameling. It also includes some traditional and contemporary enameling art techniques consisting of stenciling, sifting, cloisonné, and painting. In addition, two traditional enameling types are included without mentioning their names: “enameling process like stained glass, and etching the metal and fill the etched areas with enameling” (General Art Education Supervision, 1999/2000, p. 14). With regards to the enameling techniques mentioned, only stenciling, sifting, cloisonné, painting, acid etching method, and technical procedures were explained and illustrated with some pictures and sketches. This
document provided useful information that can be considered when formulating a content outline for pre-service teachers.

In the Metalsmithing professional development for in-service art teachers, art material for secondary school levels requires some art knowledge and skills in Metalsmithing and among these is enameling. Enameling is described in a short statement: “Teachers should know how to utilize cold enameling” (General Art Education Supervision, n.d., p. 41). The professional development materials contain some basic information that can be useful in preparing a content outline for a per-service course.

*Art Documents from the CBE*

Metalsmith I (AE 171) and Metalsmith II (AE 371) course syllabi as well as Qambar’s (2006) autobiography were analyzed. The Qambar autobiography was included because he is considered the only Kuwaiti art educator who creates and exhibits enameled art work. The course (AE 171) Metalsmith I is a required course of pre-service teachers at the CBE and consists of two credit hours, the Metalsmith I course syllabus is divided into three sections consisting of course description, course objectives, and course content, as well as a reference section. In the course objectives, a statement about enameling is included. It states, “Students should have the ability to deal with different materials that can be produced by utilizing enameling and oxides as a means of expression in teaching color theory” (Metalsmith I (AE 171) syllabus, n.d., p. 1). In the references section, only one Arabic source of enameling, “Enameling Art” by an Egyptian author Mohammad Ahmed Bakrey (n.d), is found.
Metalsmith II (AE 371) is a two credit elective course for Kuwaiti pre-service art teachers at the CBE. In this syllabus, mention of enameling is only found in the references. It is the same as found in the Metalsmith (Metalsmith II (AE 371) syllabus, n.d.). Little information was found in these two syllabi that are of use in creating a content outline for a course in the enameling arts.

In his autobiography, *The Endless Dream*, Mohammed Qambar (2006) described his use of some basic enameling techniques such as sgraffito, painting with brush, and sifting. In addition to these enameling techniques, he utilizes beads as well as crushed glass on enamels in order to create some special effects in his enameled artworks (Qambar, 2006). His artworks reinforce the spread of enameling art in the Kuwaiti culture. The content analysis of the autobiography reveals some limited information that can be used in shaping a content outline for a course in the enameling arts for Kuwaiti pre-service teachers at the CBE.

*Art Documents from the Dar al-Atahr al-Islamiyyah*

Three books from the Dar al-Atahr al-Islamiyyah entitled *Verity in Unity* (Qadome, 1987), *Islamic Art in the Kuwait National Museum* (Jenkins, 1983), and *Treasury of the World: Jewelled Arts of India in the Age of the Mughals* (Keene & Kaoukji, 2001) were examined. These important books contain information about the historical development enameling in the Islamic culture.

Qadome’s (1987) book, “*Verity in Unity*”, presents some Islamic historical objects and artifacts that are owned by the Al-Sabah family in the State of Kuwait. She addressed some Islamic objects and artifacts consisting of Arabic calligraphy in sacred text such as
the Holy Quran and the art of lettering, ceramics, glass, metal, and coins. In the metal section, she described a dagger and scabbard from the first quarter of the 17th century of Mughal India which contains champlevé enameling technique (Qadome, 1987).

Jenkins’s (1983) book, “Islamic Art in the Kuwait National Museum” presents some Islamic historical objects and artifacts that are owned by the Al-Sabah collection in the State of Kuwait. Dr. Jenkins addresses an introduction of Islam and how enameling was transferred into the royal Mughal workshops, and includes some historical Islamic objects and artifacts such as manuscripts, medical instruments, ceramics, glass, wood, metal, carpet, coins, and textiles. In the metal section, Jenkins (1983) described three items which contains champlevé and cloisonné enameling techniques such as a pair of earrings from the twelfth century, a dagger and scabbard from the first quarter of the 17th century of Mughal India, a ring to stabilize huqqa bowl from the 1635 century of Mughal India, and a dagger and scabbard dated between the second half of the 17th century and the 18th century of Mughal India.

Keene’s and Kaoukji’s (2001) book, Treasury of the World: Jewelled Arts of India in the Age of the Mughals, presents brief Islamic historical notes and some artifacts that are owned by the Al-Sabah collection in the State of Kuwait. Varieties in stone settings, inlaid hard-stones, relief in hammered precious metal, engraved gold-backed jewels, gemstones on gold floral ground, developments in enamels, gold-embellished steel, relief-carved ornament, carved set gemstones, gemstone forms, inscribed royal gemstones, and jeweled magnificence are discussed. With regards to the developments in enamels, the authors discuss Mughal-era Indian enameling, its developments in the
Islamic period fifty-six enameling pieces are shown along with their brief history (Keene & Kaoukji, 2001). It should be noted that only champlevé, basse-taille, cloisonné, and Limoges enameling techniques were used to decorate these fifty-six pieces.

These 3 important books from the Dar al-Atahr al-Islamiyyah include valuable information regarding enameling art in the Kuwaiti culture which can be used in developing a content outline for an enameling course for Kuwaiti pre-service art teachers. The material will be especially useful in developing the portion of the outline that reflects the relationship of enameling to the Islamic culture.

Summary and Discussion

Two of the 3 documents from the MOE, Metalmithing II (47) course materials for the high school level from the MOE (1999/2000) and Metalmithing professional development materials for the in-service art teachers from the MOE (n.d.), contain some useful information about contemporary and traditional enameling techniques; however, little information was found about how to create these enameling techniques; only one etching method was explained. No information was found about the history of enameling in Islamic art. It is clear that these 3 documents from the MOE do not provide sufficient information about teaching enameling for the secondary school levels and do not support the expected level of professional development that is needed.

One of the documents from the CBE, Metalmith I (AE 171) and Metalmith II (AE 371) course syllabi from the CBE (n.d.), contained a little information about the enameling arts. On the other hand, the second document, The Endless Dream, Mohammed Qambar (2006), described some experiments with some basic color
techniques used in enameling. In short, documents from the CBE provide only limited information that can be utilized in the development of a content outline for a pre-service course in enameling.

The 3 important books from the Dar al-Atahr al-Islamiyyah, *Verity in Unity* (Qadome, 1987), *Islamic Art in the Kuwait National Museum* (Jenkins, 1983), and *Treasury of the World: Jewelled Arts of India in the Age of the Mughals* (Keene & Kaoukji, 2001), contained valuable information about enameling arts in Islamic and Kuwaiti culture that can be incorporated into a content outline for a pre-service course in the enameling arts.

In total, the documents analyzed contained only a limited amount of information that will be useful in the preparation of a content outline for a course in the enameling arts for pre-service art teachers at the CBE.

**Merging Data**

The concurrent mixed methods approach (Creswell, 2009; Creswell & Plano Clark, 2007; Tashakkori & Teddlie, 1998; Teddlie & Tashakkori, 2009) was used to merge the quantitative data and the qualitative data in portions of this study. These portions consisted of knowledge, skills, experiences, attitudes, and perceptions of the participants about enameling arts as well as the current condition of the art education program at the CBE. The two data sets from the pre-service teachers and the in-service teachers, the art supervisors and the art education faculty at the CBE and KU were merged during the data analysis. The conclusions that emerged form the results of this merger are as follows.
First, with regard to knowledge, skills, and experiences in the enameling arts, both the pre-service art teachers and in-service art teachers did not have basic knowledge, skills or experiences about the enameling arts, including contemporary and traditional techniques and the relationship to Islamic culture. However, a small number of the art education supervisors at the MOE, and art education faculty members at the CBE and KU had limited knowledge, skills, and/or experiences in the enameling arts. The majority of the subjects in this study were unaware of the history of enameling arts and its relationship to Islamic arts and culture.

Second, with regard to perceptions about the enameling arts, all respondents perceived enameling arts as an important addition to be included in the art education curriculum at the College of Basic Education (CBE). However, this art experience will be new for the pre-service art teachers and requires the inclusion of enameling arts skills, knowledge, experiences, and its history within the art education program.

Third, most of the pre-service art teachers were uncertain about the inclusion of enameling arts to the art education curriculum. Some of the pre-service art teachers expressed positive attitudes towards teaching enameling arts, while a few of them felt discouraged to learn about this art experience. All art education supervisors at the MOE and art education faculty members at the CBE and KU strongly supported the idea of including and teaching enameling arts at the art education program at the CBE as well as at the Kuwaiti public schools. Moreover, all interviewees from the MOE, the CBE, and KU agreed and suggested a revision to the current art education curriculum at the CBE, and they believed that this art program does not graduate competent Kuwaiti art teachers.
Finally, there were important but limited resources about enameling arts that could be considered as text books or references in the art. Although Dar al-Atahr al-Islamiyyah holds valuable publications about Islamic arts and history, including enameling, none of these publications were considered as a reference in art and art history courses in the MOE and the CBE. Therefore, it is almost certain that there is a disconnection and miscommunication between these two educational foundations with regards to the proper enameling information that should be covered and taught in the art education classes. Even though the respondents did not provide sufficient information about enameling arts, the literature review and the researcher as an art expert in this unique art were used to develop a content outline that is educationally, practically, and culturally suitable for the pre-service Kuwaiti art teachers.

Research Question 9

Enameling Content Outline

Research question 9 addressed the ways that the skills, knowledge, and experiences and the attitudes, perceptions, and understandings of the four populations studied and the documents examined with regard to how they could inform the development of a meaningful curriculum for enameling in Kuwaiti pre-service art education at the College of Basic Education. The proposed content outline was framed within two theoretical frameworks: Discipline Based Art Education (DBAE) and Social Reconstruction. Additionally, this project was inspired by a proposal by Alnajdi (1998) which studied the incorporation of computer technology into the art education program at the CBE in Kuwait and by a curriculum proposal designed by Darweesh (2005) for
teaching concepts in the Islamic arts in Metalsmithing for the high school students in Richmond, Virginia.

The following content was gleaned from the face-to-face interviews: the nature and functions of enameling, history of enameling, designing on metals, preparing metal surfaces, the chemicals of enameling or color chemistry and mixing colors, enameling types, some methods of enameling, temperatures for enameling, colors, operating kilns, firing temperatures, and decorating techniques like dipping, pouring, using a paint brush, and sifting. Because little was found in either the survey or the face-to-face interviews that was helpful in formulating a content outline for a pre-service course in enameling, the researcher had to rely heavily upon what he found in the review of the literature and his own professional experience to formulate the content outline. The literature review proved to be very valuable in defining the different types of traditional and contemporary enameling techniques and developing the portion of the content outline that related enameling to the Islamic culture. This was enhanced by documents analyzed from the Dar al-Atahr al-Islamiyyah which contained valuable information about the history of the enameling arts in the Islamic culture, allowing the researcher to become more aware of the required materials and content that would benefit the pre-services art teachers and which align with the expected outcomes of the MOE.

As mentioned before, the researcher’s enameling experiences in this challenging art plays an important role while developing this content outline. He has studied the enameling arts in Kuwait as well as at the Virginia Commonwealth University and the University of North Texas. His artistic experiences in traditional and contemporary
enameling techniques and art curricula in the Kuwaiti and the U.S. cultures enabled him to determine the proper materials and content that should be included and covered in a course for pre-service art teachers at the CBE.

The goal of the content outline and subsequently a course in enameling is to introduce the students to vitreous enameling as an area of study in art. The proposed content will provide students with a solid foundation in enameling, metal fabrications, workshop practices, safety, the use of tools and materials, focusing on contemporary enameling techniques, and current issues and practices relating to the enameling arts.

The following content was identified as appropriate for a course in enameling for pre-service art teachers in Kuwait and assumes that the student has been introduced to some basic metal techniques in a general metals course:

- History of enameling arts
  This will include a comprehensive overview of the history of the enameling arts, including enameling in the late centuries. The movements, artists, and styles from the Greek, Celtic, Byzantine, German, Italian, Chinese and Japanese, French, English, Russian, and India will be included. Specific attention will be given to the relationship to the Islamic culture.

- Contemporary and traditional enameling techniques
  The following techniques will be introduced: stenciling, sifting, sgraffito, multi enamel types, under-glaze, over-glaze, metallic glaze, raku, swirling, scrolling, crackle enamel, silkscreen, foil and leaf, sifting, foil, lump, and
threads, cloisonné, champlevé, plique-à-jour, grisaille, Limoges, ronde bosse, and basse-taille.

- Production processes
  This will demonstrate the diverse methods of creating enameling techniques.

- Safety issues
  This will cover the safety precautions for the enamelist, including wearing an apron, full face shield, and heat resistant gloves while working with enameling kilns or furnaces, as well as wearing a dust mask and goggles while mixing, applying powder enamels, and spraying enamels. With regard to the environment, kilns or furnaces will be placed in a well ventilated area due its very hot atmosphere.

- Color theory applied to the enameling arts
  This will cover the color wheel, including mixing colors, primary and secondary colors, warm and cool colors, achromatic colors, complementary colors, and color harmonies.

- Criticism and aesthetics applied to the enameling arts
  This will focus on describing, interpreting, and evaluating artworks in order to increase the understanding and appreciation of enameling arts. It will also examine the nature, meaning, and value of the enameling arts (see Appendix P).

Students who master this enameling content will be able to:
- Explore, understand, and adopt different ways of thinking, art-making, and expression.
- Expand the student’s knowledge and experiences in enameling arts.
- Develop an awareness of the societal issues and/or problems.
- Learn about history of enameling arts.
- Develop skills in critical discussion and criticism.
- Develop an aesthetic vision of enameling art and share thoughts and feelings.
- Understand art as a reflection of various individuals’ environments.
- Develop creative problem solving skills.
- Learn new terms and vocabularies.

Summary

This chapter presented the findings and discussion of this study and described the quantitative and qualitative data analyses. Descriptive results were presented. In addition, a content outline for an enameling course for pre-service art teachers in the College of Basic Education was developed.
CHAPTER 5
SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

Summary

The purpose of this study was (1) to examine the knowledge, skills, and experiences in the enameling arts and the attitudes and perceptions of in-service and pre-service Kuwaiti art teachers, art supervisors at the Ministry of Education (MOE) and art education faculty members at the College of Basic Education (CBE) and Kuwait University (KU) about what they believed pre-service art teachers should know and be able to do in order to teach the enameling arts, and (2) to use this information to inform and guide the development of a content outline for an enameling course for pre-service Kuwaiti art teachers that is educationally (how to perform enameling arts skills and how to teach what they know), practically (safety issues, workshop management, etc), and culturally (its relation to Islamic culture).

Mixed methods were used in this study. The quantitative method mainly focused on the survey questionnaire, whereas the qualitative methods focused on (1) the partially close-ended questions and the additional comments and suggestions from the survey questionnaire (2) Face-to-face structured interviews, and (3) a content analysis of art documents from the Ministry of Education, the College of Basic Education, and the Dar al-Atahr al-Islamiyyah. The study surveyed all the Kuwaiti pre-service art teachers at the CBE, 12 in-service art teachers at the MOE, 3 art education supervisors at the MOE, 6 art education faculty members at the CBE, and 2 art education faculty members at KU.
Conclusions

Based upon the findings of the study, several conclusions can be drawn. Most of the pre-service art teachers did not have clear perceptions and attitudes about the enameling arts, some expressed positive perceptions and attitudes about the enameling arts, and a few had negative attitudes towards enameling arts. However, all interviewees in the study expressed positive perceptions and attitudes about the enameling arts. Most of the respondents agreed that a revision to the current art education curriculum at the CBE was needed and made suggestions about how the curriculum should be revised. All respondents expressed support for the inclusion of a course in the enameling arts in the art education curriculum at the CBE.

Most of the respondents revealed limited knowledge and skills and modest experiences in the enameling arts. A small number of the art education supervisors at the MOE and the art education faculty members at the CBE and the KU had some basic knowledge and limited experiences in the enameling arts. The majority of the participants were unaware of the history of the enameling arts and its relationship to Islamic arts. Because of the limited knowledge of the participants in the study, they were not able to provide guidance in shaping the content for a course in the enameling arts. Important documents at the Dar al-Atahr al-Islamiyyah provided guidance in shaping the content outline for the enameling course, especially with regard to the relationship to the Islamic culture. It was evident that there is a disconnection and miscommunication between the MOE and CBE with regards to the proper enameling information that should be covered and taught in the art education classes. Finally, it was determined that the development of
a content outline for a course in the enameling arts that is educationally (how to perform enameling arts skills and how to teach what they know), practically (safety issues, workshop management, etc), and culturally (its relation to Islamic culture) suitable for the pre-service Kuwaiti art teachers would be largely driven by the literature review and the expertise of the researcher who has extensive experience in the enameling arts.

Recommendations

During the course of conducting this study, a number of issues surfaced that warrant further consideration. Therefore, the following recommendations for future research are made:

- There is a need to investigate the most effective way to deliver the needed knowledge about the enameling arts to pre-service teachers. Should enameling be integrated into basic metal courses or it should it be a separate course? Such research will provide information about whether or not a separate, more intensive enameling course is more appropriate for pre-service teachers than basic metal courses. This, in turn, will have an impact on how effectively the enameling arts are taught in the Kuwaiti public schools.

- Investigations are needed about how to incorporate the history of enameling into the art history course (AE 194) taught at the CBE. This is important to insure that this art form is included in the basic art history education of pre-service teachers at the CBE. Such research could also explore ways in which enameling relates to the Islamic culture. More investigation into this area has the potential of improving the general art history knowledge and the appreciation of art for all
pre-service art teachers.

- Exploration of the effective use of field trips to the Dar al-Atahr al-Islamiyyah collections and other local museums in relation to teaching the enameling arts is needed in order to learn about Islamic arts and culture in Kuwait. Currently, field trips to museums are not a part of the pre-service art teacher’s experience. This area offers many possibilities for research into how to effectively use the museums in Kuwait in the pre-service preparation of art teachers. There are many models from other countries that could be explored and adapted for use in Kuwait. Vallance (2004) describes five such models – “The Common places of Education,” “The Tyler Rational,” “Ways of Valuing a Curriculum,” “Conflicting Conceptions of the Curriculum,” – in the development of her model, a “Storyline View of Museum Education.”

- This study also pointed out the need to explore further the works of enameling art with the collectors who assembled and own the collections for the Dar al-Atahr al-Islamiyyah. The collectors and the objects are rich resources that should be explored as the content for enameling art courses is developed.

- Investigations are needed with regard to the best methods of teaching the enameling arts. They are generally taught in a very traditional studio environment; however, there may be other possibilities for effectively delivering enameling content and experiences to the pre-service and in-service art. For example, there is a need to explore how new technologies might be utilized in teaching the enameling arts.
● Investigations are also needed in relation to how to effectively provide in-service art teachers at the MOE with needed information about the enameling arts which will enable them to effectively teach enameling in the schools.

● Additional historical research on the enameling arts is needed, especially with regard to the development of enameling in the Islamic art and culture. The availability of such information is very important in providing instruction to students and can help them understand the chronological development of the enameling arts and how they relate to Islamic art and culture.

● More research is needed which examines the status of the art education program in general at the College of Basic Education. Studies have repeatedly called for changes in the art education program at the CBE; however, few have explored what specifically needs to be changed. This type of investigation would provide the decision makers at the CBE with the information that they need to improve the pre-service program for art teachers.

● There is a need to periodically repeat studies similar to the one conducted by the researcher in order to determine if attitudes and perceptions about the enameling arts change.

Final Thoughts

This study provided me with many challenges and benefits. During this study, I attempted to explore, research, and discuss reasons behind the neglect of enameling arts as an important aspect in the Kuwaiti educational systems and the Islamic culture. In this respect, I used mixed methods to explore the problem from different point of views and
examined two research theories. Additionally, I depended on my own experiences and related resources to develop a content outline in enameling arts. With regard to utilizing and testing Eisner’s and Posner’s theories in this research, not only did these curriculum theories help me to collect data, but they also assisted me in increasing my awareness about enameling arts among various populations that I studied. For example, examining the enameling arts as a vital part of the Islamic cultural heritage provided a social context for the participants in the study. The study also sought information from various populations, insuring that the curriculum outline that was designed was a collaborative effort and allowed for many voices to be heard. This collaborative approach is consistent with Eisner’s social reconstruction theory. It demonstrates that it is more efficient than an individual effort because of the various voices that are heard - the Kuwaiti student teachers and the Kuwaiti educational authorities. Additionally, the literature review and the researcher’s expertise played a positive role in designing the content outline in the enameling arts for the current Kuwaiti art education program at the CBE. Posner’s curriculum outline provided an efficient model for presenting the content outline. In addition, these curriculum theories enabled me as a researcher to reach the saturation point during the data collection in Kuwait. Thus, based upon my experiences in this study, I believe that Eisner’s and Posner’s curriculum theories are valid.

Finally, as an art educator and researcher in the field of art education, I will continue to search for challenges in art education that are related to the pre-service and in-service art teachers in the Kuwaiti public schools as well as in the College of Basic Education.
APPENDIX A

HISTORY AND CULTURE OF KUWAIT, HISTORY OF THE EDUCATIONAL SYSTEM IN KUWAIT, HISTORY OF THE COLLEGE OF BASIC EDUCATION, AND PRE-SERVICE ART TEACHER PROGRAM AT THE CBE
History and Culture of Kuwait

History

Kuwait is an Islamic country. The establishment of the town of Kuwait occurred when Arab tribes settled in the Arabian Peninsula in 1672 (Ministry of Information, 1996). With more Muslim immigrants to the town of Kuwait, people begin to live beside the coast in order to have benefits from it. In 1716, the Al-Sabah family arrived in Kuwait, and in 1752, the first ruler for Kuwait was elected from the Al-Sabah family. Since then, Kuwait has been ruled by the Al-Sabah family (Ministry of Information, 1996). In 1897, Kuwait became a British colony; it gained its independence in 1961.

In the past, Kuwaiti people depended on the sea for their livelihood. Pearling was an important activity for the Kuwaiti people’s survival. Pearls were traded by over 800 dhows out of Kuwait (Ministry of Information, 1996). Not only pearling but also fishing and shipbuilding were also the main professions for Kuwaiti citizens (Ministry of Information, 1996). However, when oil was discovered in 1938 and was produced and exported in the mid 1940s, the Kuwaiti lifestyle began to change because of the economic growth and education that occurred within the country. In addition, because of the location of Kuwait in the top center of the Gulf, trade and business have played a dynamic part in increasing development in Kuwait. As a result, the Kuwaiti government initiated departments and ministries such as Ministry of Education (MOE) (Ministry of Information, 1996). After a while six states were developed: Al-Ahmadi, Al-Asima, Al-Jahra, Al-Farwaniyah, Hawally, and Mubarak Al-Kabeer.
History of Educational System in Kuwait

The history of education began when Kuwaiti people started to realize the importance of a well-educated person in society. Therefore, in a place which is called elkatateeb, the boys and girls were tutored by some religious people. They were instructed in basic math, writing, reading, and religion (Al-Ahmad, 1986). An old woman who is called an Almutawa instructed the girls while an old man is called an Almutawaa instructed the boys (Shehab, 1984). Because the interest toward learning new things did not stop for Kuwaiti residents, new schools were started.

In 1912, education first appeared in Kuwait when Al-Mubarakea, a private school for males, was established (Abdulghafoor, 1983; Shehab, 1984). Also, the Al-Ahmadiyah school was founded and it was known as the first place to teach English in 1921 (Abdulghafoor, 1983; Shehab, 1984). Later, in 1936, the Council of Education was started and formal education began in Kuwait (Abdulghafoor, 1983). Shortly thereafter, the first school for girls was established in 1937 (Abdulghafoor, 1983; Shehab, 1984). Moreover, education with new ideas, philosophies, and goals for Kuwaiti society was established in 1954 (Al-Ahmad, 1986). Soon after independence, the perception of education changed in the State of Kuwait (Abdulghafoor, 1983; Abu-Hakima, 1982; Al-Ahmad, 1986). As a result of this, the Kuwaiti Constitutions started to define the role of education for Kuwaiti citizens in the society.

Education is a priority issue in Kuwait because it is considered as a knowledgeable weapon for each person. According to the Kuwaiti Constitution (1962), article 40, section 3, “Education is a right for Kuwaitis, guaranteed by the State in
accordance with law and within the limits of public policy and morals. Education in its preliminary stages shall be compulsory and free in accordance with law” (Kuwait Mission, 2004). Another statement in the Kuwaiti Constitution emphasizes the important role of education in the Kuwait society. As noted in the article 13, section 2, “Education is a fundamental requisite for the progress of society, assured and promoted by the State” (Kuwait Mission, 2004). The government realizes the valuable role of an educated person in the Kuwaiti culture, and, therefore, education is offered free to all Kuwaiti citizens from pre-school through the university level to ensure quality education for every citizen in the Kuwaiti culture.

The Kuwaiti educational system is operated by the Ministry of Education (MOE). Public and private schools are supervised by the MOE which is responsible for providing school buildings, teachers, and materials and supplies for kindergarten, elementary, middle, and high school levels. Boys and girls are separated in the public schools that are provided by MOE. The educational system is divided to three stages: four (4) years for elementary, four (4) years for middle, and four (4) years for the high school level. On the other hand, a new education strategy was developed in June 2003, and stated that beginning during 2004/2005, the education stages for the public educational system will be as follows: five (5) years for elementary, four (4) years for intermediate, and three (3) years for secondary (Kuwait, n.d.).

Districts of education are developed under the umbrella of the MOE to serve, and supervise the schools in all of the six states. In each educational district there is an advisory department for kindergarten, elementary, middle, and high school boys and girls.
which monitors the school system. Also, in each state educational district, there are advisory department’s supervisors for each major; their roles are to provide educational supervisors who are mandated to visit schools and offer help and advise teachers in their curriculum and teaching issues. Schools are administered by the principal and the state district of education. The state districts of education provide another perspective to assure the quality of teachers. Thus, the Ministry of Education regularly creates training workshops for the Kuwaiti teachers in order to increase their knowledge and performance.

Like the Ministry of Education, there are several public educational authorities that are also responsible to educate the Kuwaiti citizens. These include the Kuwait University, the Ministry of Higher Education, and the Public Authority for Applied Education and Training (PAAET). These three public educational agencies are in-charge of undergraduate college education and graduate education (Ministry of Information, 1996). Overseas scholarships are offered to the Kuwaiti citizens only by the Ministry of Higher Education and Public Authority for Applied Education and Training to pursue both undergraduate and graduate education, while the Kuwait University offers overseas scholarships to the Kuwaiti residents for only graduate studies (Ministry of Information, 1996). Also, many of the Kuwaiti ministries present limited scholarships for their employees to improve their education and to provide professional development opportunities. Recently, many private institutions and universities were also established to provide education in Kuwait.
Art Education Programs in Kuwait

Art education was first taught in Kuwait in 1912 (Al-Enazi, 1998). Because of sharing several attributes with Egypt like culture, religion, and tradition, in 1943 the Egyptian art education curriculum was considered a good model and was adapted in Kuwait (Al-Muhanna, 1989, Al-Enazi, 1998). The Egyptian art education curriculum was modified before it was implemented to insure that it was appropriate for and consistent with Kuwaiti culture. The curriculum is generally based on the art elements - line, color, and texture - for the elementary, middle, and high school levels. However, the secondary art education curriculum is specialized and focuses more on one major area of fine art at the high school level which offers credit hours. Al-Enazi (1998) described the historical development of art education in the Kuwaiti elementary schools. He reported that art education development in the elementary level passed through seven stages. He explained that the first stage was between 1912-1935 in copying from patterns and artistic designs, the second stage was between 1936-1942 in drawing from nature and artificial patterns, the third stage was between 1943-1951 in free expression for children, the fourth stage was between 1952-1961 in directed free expression, the fifth stage was between 1962-1976 in education through art, the sixth stage was between 1977-1980 in experimentation and trial and error, and the last stage was between 1981-1997 in modernization in teaching art.

Interestingly, it should be noted that the Kuwaiti Ministry of Education provides all grade levels with free art materials and art supplies (Ministry of Education, 1990/1991). Moreover, the Kuwaiti Ministry of Education provides all grade levels with
a unified art education curriculum (Ministry of Education, 1990/1991). Even though these art classes are taught and art supplies are offered, there are some missing aspects in the curricula of art education. Many Kuwaiti researchers believe that the art education curriculum needs to be reformed and taught as disciplines (Al-Najar, 2001; Al-Enazi, 1998; Al-Muhanna, 1989). In the late of the 20th and the beginning of the 21st century, many research studies have shown some disadvantages of the art education core curriculum at the College of Basic Education (CBE).

Al-Sayegh (1999), for example, conducted an interview with the Head of Art Education Supervisors in the Ministry of Education and he responded that “The training period for instructors at the College of Basic Education is not adequate” (p. 78). Al-Sayegh pointed out that the art education curriculum needs to be changed and updated in order to accommodate new trends and needs in the field of art in general and Kuwaiti culture in particular. In 2001, another study was conducted by Adel Al-Najar, and he suggested that the art education standards for both of Ministry of Education (MOE) and College of Basic Education (CBE) should be aligned. It appears from Al-Najar’s study that he suggested the art education goals and objectives of the MOE and the CBE should be revised and updated for better educational outcomes.

History of the College of Basic Education (CBE) in Kuwait

The College of Basic Education (CBE) is one of five colleges under the supervision of the Public Authority for Applied Education and Training (PAAET). However, the historical antecedent of the College of Basic Education goes back to the 1949; it was named the College of Basic Education (CBE) during the academic year 1986
and 1987 (College of Basic Education Manual, 2003/2004; PAAET, 2006). This was the culmination of a long history stretching back to 1949 when extensive efforts were made to establish an institution for the training of male and female primary school and kindergarten teachers. These efforts resulted in the opening of teachers’ institutes in 1962. These institutes were in operation until 1973, when they were closed, giving way to the newly established Teacher Education Institute (males and females) which has grown to its present size with only a name change (College of Basic Education Manual, 2003/2004; PAAET, 2006). The main goals for the College of Basic Education (CBE) are:

1- To prepare the skilled national cadre needed to teach in the primary and kindergarten schools of the country.

2- To qualify these cadres in the various specialties needed by the Ministry of Education.

3- To study the requirements of the Ministry of Education and to foster a close link between the appropriate divisions of the Ministry of Education and the College of Basic Education. (College of Basic Education Manual, 2003/2004; PAAET, 2006)

In the College of Basic Education (CBE) there are sixteen different departments that offer undergraduate majors for Kuwaiti citizens. Kuwaiti males and females can be specialized in certain major areas at the CBE such as art Education, Arabic language, educational technology, electricity, home economics, interior design, Islamic education, kindergarten, librarianship and information science, mathematics, music education,
physical education and sport, science, and social studies. Kindergarten and home economics are offered only for females. The study system at CBE is operated under the credit hour system, and, therefore, the student has to complete successfully 130 credits in order to be graduated. After graduation from the CBE, the Ministry of Education employs them as in-service teachers’ public schools of the six states in Kuwait.

Art Education Program in College of Basic Education

The Department of Art Education is located in the College of Basic Education. It is only regarded as the main resource that offers art education program in Kuwait. The art education department was established during the academic year 1978 and 1979 in the CBE (College of Basic Education Manual, 2003/2004). During that time, the art program only offered a diploma degree in art education, and the students were required successfully to complete 68 credits hours in order to graduate (College of Basic Education Manual, 2003/2004). However, due to the growth in the Kuwaiti education and societal needs, the art education program expanded and changed to meet the students’ needs for better educational outcomes. Thus, since the academic year 1988-1989, the art program has been offering a bachelors’ degree in art education (College of Basic Education Manual, 2003/2004). In order to be graduated with a degree in art education, students are required to have both a major and a minor. Hence, student who is successfully completed 130 credits will be graduated with a major in art education and minor in interior design (College of Basic Education Manual, 2003/2004). These credit hours are distributed as:
Thirty two credits for art production consisting of drawing, painting I, painting II, painting III, painting IV, design I, design II, design III, design IV, sculpture I, metalsmith I, ceramic I, wood-working I, crafts I, with four credit hours only from the following sculpture II, metalsmith II, ceramic II, wood-working II, crafts II.

Two credits for art history.

Two credits for art aesthetics and art criticism.

Nine credits for school field-training.

Two credits for a seminar course.

Thirty-one credits for pedagogy and curriculum.

Thirty credits for general education college requirements and elective courses.

Twenty credits in interior design as a minor consisting of basic of design, history of architecture and furniture, drafting, art heritage of Kuwait, perspective I, home design I, home design II, and technical drawing.

As noted from the art education core courses, it appears that the art program is strongly focused and dominated on the art production. In keeping with the current issues in the art education field, Day (1997) emphasized that art education programs “need to change over time in order to accommodate developments within a dynamic field” (p. 3). With regards to this Kuwaiti pre-service art program, there is several research studies recommended to reform the art education program (Alnajdi, 2001; Al-Najar, 2001; Al-Mass, 1999; Al-Muhanna, 1989; Al-Sayegh, 1998).
In Al-Najar’s (2001) dissertation research in which he examined beginning elementary art teachers’ evaluation of the efficiency of their art education preparation program at the College of basic education, he found that the first and second-year art teachers felt well-prepared and successful in the art education areas consisting of content knowledge, curriculum, and assessment. On the other hand, the respondents stressed on some several weaknesses of the art education program such as the existing art program did not provide adequate training in studio art, required irrelevant courses to elementary levels such as interior design, oil painting, wood-working, and metalsmith, did not provide adequate training in curricular issues in art education, and did not provide any training in special education for teaching students with special needs. In the mean time, the respondents recommended some valuable issues consisting of offering more art courses about other cultures, museum education, and computer art classes; whereas, other respondents suggested including the three levels of education consisting of elementary, intermediate, and high school, because the most of the elementary teachers will be transferred to intermediate and high school levels. Al-Najar (2001), noted that the art education standards of CBE and MOE should be aligned for better art education outcomes.

In another dissertation, Alnajdi (2001) examined the potential to reform traditional Arabic calligraphy for digital contemporary art. He found that most of the interviewees have a strong commitment to their cultural values and resist any major modification to the authentic traditional Arabic letterforms, and they believe that any major alteration of native Arabic writing will compromise this element of Islamic cultural
heritage and traditions. Thus, interpreting the interviewee’s responses as well as considering their insights helped him to modernize the Arabic letters, while considering the cultural boundaries, and to develop a new Arabic writing system and letterforms that could enhance visual artistic presentations in Islamic and Arab communities. Finally, he suggested implementation of his new Arabic writing system and letterforms in the art education program at the College of Basic Education (CBE) in Kuwait. In terms of CBE, there are several factors contributed to influence changing the current art education program.

Factor Contributed to Change the Art Education Program at the CBE

In Kuwait, there are several factors that contributed to change the current art education program at the College of Basic Education. The first factor is considered to be the consultation and lecture of Dr. Tom Anderson at CBE. In 1993, he came to Kuwait as a guest and consultant from the Florida State University in order to offer advice and revisions for the art education curriculum at CBE (as cited in Al-Enazi, 1998). At that time, he lectured about Art Education Today which provided new insights and perspectives about the current situation in art education (as cited in Al-Enazi, 1998). He also discussed the role of Discipline-Based-Art Education (DBAE) in the art education curriculum and the level of knowledge and its relationship to child development (as cited in Al-Enazi, 1998). After that, he wrote an evaluation report regarding the art curriculum which included some deficiencies along with some valuable suggestions of what should be done to restructure the art education program at the CBE (as cited in Al-Mass, 1999;
Anderson, 2004). Thus, visiting scholars’ ideas and perspectives assisted to influence restructuring the current art program at the CBE.

The second factor that influenced changing the art education program at CBE is the two books of Sir Herbert Read (1943) and Victor Lowenfeld (1947). To Kuwaiti art educators, Read’s and Lowenfeld’s books present a lot of useful information consisting of the mental growth, artistic characteristics of children, and chronology of child development. Additionally, their information become the base for what every student teacher should know to identify, understand, appreciate, interpret, and analyze children’s art before leaving the school field-training. Thus, these two books played an active role to establish a theoretical course that focuses on examining children’s arts entitled Analyzing Children’s Art, and to prepare the student teachers in better ways to understand, appreciate, and recognize the value of children’s art (College of Basic Education Manual, 2003/2004).

Another factor is regarded to be the results of Al-Muhanna’s, Al-Sayegh’s, and Al-Mass’s dissertations. The findings of these research papers assisted to change the core of art curriculum, restructure the contents of some art courses, and supply new art materials and establish an art laboratory in order to advance the art program. For example, Al-Muhanna (1989) explored the feasibility of introducing discipline-based art education. In his study, he found that the majority of respondents were dissatisfied with the recent art education curriculum at the CBE, and they were satisfied with implementing Discipline-Based-Art Education (DBAE) to advance the Kuwaiti art education program at the CBE. Hence, due to his research findings, the structure of the
art education program was reformed based on DBAE (Al-Enazi, 1998; Al-Mass, 1999; Al-Sayegh, 1998).

In his dissertation, Al-Sayegh (1998) examined a college level Islamic geometric design course designed for art teachers in the CBE. In his research study, he stated that the pre-service art program needs to change and to include a course in the Islamic geometric designs in the art program because the pre-service art teachers should know about teaching Islamic art and culture. Al-Sayegh (1998) pointed out that this course will allow pre-service teachers to know more about Islamic geometric designs in particular and increase their perceptions and appreciation about Islamic art in general. For these reasons, the content of the Design II course was changed to teach about Islamic geometric designs and Arabic calligraphy (College of Basic Education Manual, 2003/2004).

In another dissertation, Al-Mass (1999) evaluated the potential for a computer graphic design program for the College of Basic Education in Kuwait. Data were collected through interviews, ethnographic observations, and a survey questionnaire designed to elicit both quantitative and qualitative data. He found that the majority of respondents emphasized the importance of graphic design and supported the idea of integrating a graphic design program into the art education curriculum of the CBE. However, he also found that the major obstacles to implementation of a graphic design course were the fear of technology and allocation of funds necessary for the process (Al-Mass, 1999). Later on, the art education program established a computer laboratory to teach graphic design classes (Y. Esmaiel, personal communication, November 27, 2008).
The following factor is also relevant: attending professional art education conferences, seminars, and workshops at the regional and national levels. Through attending professional organizations and events, the art education faculty members were able to examine the current trends and issues that are related to the field of art education. In 1989, the Art Education and Regional Heritage Conference in Egypt affected the trends for teaching the art curricula contents (Al-Enazi, 1998). As a consequence, the Kuwaiti art faculty members were able to improve their art program “by revising mission statements, course work, and programmatic needs on a regular basis” (Henry & et al., 1999, p. 7) at the CBE. At the National Art Education Association (NAEA) annual conferences, the art faculty members were also more aware and they gained a wider perspective about art in curricula, different contexts, and cross-culturally (Y. Esmaiel, personal communication, November 27, 2008). For these reasons, attending advanced art education conferences, seminars, and workshops helped to change and reshape the content of art courses in the art education program.

The next factor that influenced changing the art education program at the CBE is the new art faculty members. Since the last quarter of the 20th century, the art education program has been offering scholarships for the graduates of art education. With regards to the art education graduates, the recent art education faculty members who graduated from the United States (e.g., Alnajdi, 2001; Al-Enazi, 1998; Al-Mass, 1999; Al-Muhanna, 1989; Al-Sayegh, 1998; Esmaiel, 2006) offer new perspectives and ideas, educational theories and practices, and experiences in order to advance the art education program for better educational outcomes. Al-Mass (1999) wrote that Kuwaiti art educators “…have
been given a great opportunity to develop new approaches and integrate new courses in 
education based upon the latest models from Europe and North America” (p. 25).

Currently, Esmaiel (2006) is utilizing constructivist approaches such as problem-based-
learning and project-based-learning along with reflection papers, writing assignments, 
and art projects while teaching art and design classes at the CBE and Kuwait University. 
These constructivist approaches help and encourage the Kuwaiti students to be more 
active and self-directed learners in art education and studio art classes. Therefore, due to 
their advanced educational background, the recently graduated art education faculty 
members have helped to change and reshape the art education program.

The last factor is regarded to be adjunct faculty members. Employing adjunct 
faculty members assisted to change the content of the art education program. They are 
usually art professors from Kuwait University, and art education supervisors or 
experienced in-service art teachers from Ministry of Education. More recently, Yaqub 
Dashti (personal communication, November 25, 2008) described that we as experienced 
in-service art teachers bring the critical issues and practices from school settings into the 
art education classes for art and non-art majors. He further stated that “we as adjunct 
faculty members changed the content of the art courses if we taught non-art majors” (Y. 
Dashti, personal communication, November 25, 2008). For example, one of the art 
assignments for the non-art majors was to create artwork that connects art with life such 
as creating arts and designs from natural leaves (Y. Dashti, personal communication, 
November 25, 2008). They also constructed a research paper that examines one of the 
famous artists around the globe (Y. Dashti, personal communication, November 25,
2008). These vital processes lead to increase the understanding and appreciation towards art. As a result, the content of the art education classes’ changes when the adjunct faculty members are employed and new skills, knowledge, and experiences that would help to increase the perceptions and appreciation towards art are taught.

To sum up, there are several factors that contributed to change the current art education program at the CBE such as using visiting scholars’ ideas and perspectives; employing adjunct faculty members; utilizing the results of Al-Muhanna’s, Al-Sayegh’s, and, Al-Mass’s dissertations; attending professional conferences, seminars, and workshops; employing recent art education faculty members who graduated from the United States; and studying the theories of the two books of Sir Herbert Read and Victor Lowenfeld. However, with regards to the art education program at the CBE, it is important to note that this art program changed over the past twenty years several times. Based on several research studies conducted at the CBE, it is also interesting to point out that the authorities at the CBE are willing to change and improve the art education core curriculum. Therefore, the results of this research study will examine current art education program at the CBE in general and will benefit to add some new changes in the enameling arts in particular for the students in the State of Kuwait.
APPENDIX B

ENAMELING AND HISTORY OF ENAMELING ARTS
Enameling

Enameling is considered one of the oldest decorative techniques for metals. It is identified as a technique in which a glass paste is applied to the surface of a metal and fused under very high temperatures like 760° Centigrade or 1500° Fahrenheit. Enamel consists of flint, soda or potash, lead oxide, and potassium hydroxide (Akre, 1983; Barsali, 1969; Bates, 1951; Benjamin, 1981-1988; De Koningh, 1927; Dutton, 1966; Matthews, 1984; Morton, 1970; Von Neumann, 1961). It can be found in lumps, threads, and powders forms (Darty, 2004). Cultures used different traditional styles to examine enamels on metals such as cloisonné, champlevé, plique-à-jour, grisaille, Limoges, ronde bosse, and basse-taille. See figure 1 for some of the traditional enameling techniques. On the other hand, contemporary enameling styles also are developed to examine different ways of treating metal surfaces such as en résille, camaieu, encrusted, guilloché-moiré, stenciling, ginbari foil, impasto, counter enameling, sgraffito, multi enamel types, under-glaze, over-glaze, and metallic glaze, raku, swirling and scrolling, crackle enamel, silkscreen, foil and leaf, and sifting. It should be noted that most of the traditional enameling styles are created in complex way, while contemporary enameling styles are easier to be produced.
Enamels can be attached to the metal through three processes. Torches, gas-fired, and electric kilns or furnaces are used to fuse enamels to the surface of metal (Darty, 2004; Dutton, 1966; Gollberg, 2006). Not all the metals are appropriate for enameling, but only certain metals are suitable for enameling technique. Metals such as copper, silver, pure iron, platinum, steel, aluminum, titanium, gold, and some type of bronze are good for enameling, but gilder’s metal like brass, and bronze are difficult for enameling because of the percentage of zinc in their composition (Ellis, 1997; Untracht, 1962; Wiener, 1981). Also, metals with low melting points such as lead, tin, and zinc can not be enameled (Zarchy, 1959).

Enameling has a variety of types that makes the metal surface look unique and beauty. There are soft, medium, and hard enamels and each of them can be used for specific technique either separated or combined. Depending on the technique desired, low or soft, medium, and hard enamel has a different firing temperature to be fused. A low firing temperature is considered to be 1050 °F to 1350 °F while a medium firing temperature is regarded to be 1350 °F to 1500 °F, but higher than 1500 °F is a hard fused enamel temperature (Ellis, 1997). Enamel has several types for decorating and coloring metal such as opaque, translucent, transparent, and opalescent (Akre, 1983; Bates, 1951).
Untracht (1962) states about enamel types, “Enamel can be classified into the following groups: Opaque, through which no light will pass; Translucent, through which some light will pass; Transparent, through which some light may easily pass; and Opalescent, which vary in translucency and opacity” (p. 18). Enameling can be applied to the metals through several methods such as pouring, dipping, spraying, painting (Ball, 1974), dusting (Oltman, 1990), wood-stick, and spatula (Darty, 2004). In order to create enameling techniques, traditional and contemporary methods should be examined.

Enameling Styles (Traditional & Contemporary)

Art is a world of perception where artists deploy their imagination and creativity in so many ways. In enameling art, artists throughout the decades have taken different path to explore, develop, and achieve their own desired visions. Each of these path is unique and has it is own style in terms of technique and methods of production. These different paths are grouped into two main categories. In enameling arts, there are traditional and contemporary technique styles. To achieve or understand these traditional and contemporary techniques, we should explore them in terms of definition, method, and origin.

Traditional Enameling Styles

Traditional enameling techniques consist of cloisonné, champlevé, Limoges, basse-taille, plique-à-jour, grisaille, and ronde bosse.

Cloisonné: is a French term, and it means cell or partition (Chaffers, 1869; Gentille, 1968; Payne, 1914). It is a technique in which uses cells that are formed and usually soldered by thin wire or ribbon on the metal surface; or a layer of flux that first
can be fired, and then add wires on the metal surface which are fired to hold the cells. Wet enamel are applied into the separated areas (cells) which is called wet packing, and then the enamel left to be dried before firing the metal pierces in the kiln (Akre, 1983; Bates, 1951, 1967; Benjamin, 1978; Bovin & Bovin, 1990; Cere, 1975; Chaffers, 1869; Choate & De May, 1970; Clarke, Feher, & Feher, 1977; Codina, 2006; Cohen, 2002; Cohen & Ferster, 1982; Cunynghame, 1906; Darty, 2004; Day, 1907; De Koningh, 1927; Dutton, 1966; Farber, 1991; Firefield, 1978; Franklin, 1971; Gale & Little, 2003; Garner, 1962; Gentille, 1968; Gollberg, 2006; Liban & Mitchell, 1980; King, 2001; Knuth, 2000; Matthews, 1984; Maryon, 1971; McCroght, 2004; McGrath, 1995; McGrath, 2003; Morton, 1970; Newman, 1981; Pack, 1947; Rothenberg, 1969; Sanford, 1970; Seeler, 1969; Strosahl, Strosahl, & Barnhart, 1981; Scribner, Welford, & Armstrong, 1877; Von Neumann, 1961; Werge-Hartly, 2002; Wiener, 1981; Taylor, 1977; Young, 2008). This challenging technique often featured with precision, repeated pattern, and outlined design. See figure 1 for the cloisonné enameling technique.

Champlevé is a French term (raised field), and it is called inlayed enameling (Day, 1907). It is a technique in which chasing, engraving, etching, filing, stamping, or soldering two sheets of metal, one of which is cut by a jewelry saw, and then wet enamels (wet packing) are used to fill the raised places before firing the piece in the kiln (Akre, 1983; Bates, 1951, 1967; Benjamin, 1978; Bovin & Bovin, 1990; Cere, 1975; Chaffers, 1869; Choate & De May, 1970; Codina, 2006; Cohen, 2002; Cohen & Ferster, 1982; Cunynghame, 1906; Darty, 2004; Day, 1907; De Koningh, 1927; Dutton, 1966; Firefield, 1978; Gale & Little, 2003; Garner, 1962; Gentille, 1968; Gollberg, 2006; King, 2001;

Basse-Taille is also a French term (low-cut) in which the surface of the metal is entirely fabricated with a low relief design, texture, and or ornament which can be seen through translucent and transparent enamels. This enameling technique is similar to champlevé but all the metal surface is covered with transparent enamels. The low relief cut can be created by engraving, chasing, stamping, etching, or using a flex shaft machine to create a special pattern or effect on the metal surface (Akre, 1983; Bates, 1951, 1967; Benjamin, 1978; Bovin & Bovin, 1990; Cere, 1975; Choate & De May, 1970; Cohen, 2002; Cohen & Ferster, 1982; Cunynghame, 1906; Darty, 2004; Day, 1907; De Koningh, 1927; Dutton, 1966; Gale & Little, 2003; Garner, 1962; Gollberg, 2006; King, 2001; Knuth, 2000; Maryon, 1971; Matthews, 1984; McCreight, 2004; McGrath, 1994; McGrath, 1995; McGrath, 2003; Morton, 1970; Newman, 1981; Pack, 1947; Rothenberg, 1969; Sanford, 1970; Werge-Hartly, 2002; Wiener, 1981; Young, 2008). Day (1907) noted that one of the main reasons of creating this enameling technique is to gain color gradation. See figure 1 for the basse-taille enameling technique.

Grisaille or en grisaille is a French term which means graying. It is a technique in which monochromatic painting is used where fine layers of built-up white enamel powder are mixed with a very light oil (water, turpentine, oil of lavender, or petroleum oil), and
then applied over a dark blue or black opaque background in order to draw a design and create scales of gray (Akre, 1983; Bates, 1951, 1967; Benjamin, 1978; Bovin & Bovin, 1990; Cere, 1975; Chaffers, 1869; Choate & De May, 1970; Codina, 2006; Cohen, 2002; Cunynghame, 1906; Darty, 2004; Day, 1907; Garner, 1962; Gollberg, 2006; King, 2001; Knuth, 2000; Maryon, 1971; Matthews, 1984; McCreight, 2004; McGrath, 1995; McGrath, 2003; Morton, 1970; Newman, 1981; Palmer, 2003; Seeler, 1969; Strosahl, Strosahl, & Barnhart, 1981; Von Neumann, 1961; Werge-Hartly, 2002).

Limoges is a technique which is named after a city in France (Limoges, 2006). Limoges is a technique in which a brush is used to paint the finely grounded enamel mixed with a very light oil (water, turpentine, oil of lavender, or petroleum oil) to create a detailed image on the metal surface (Akre, 1983; Bates, 1951, 1967; Benjamin, 1978; Bovin & Bovin, 1990; Cere, 1975; Chaffers, 1869; Choate & De May, 1970; Cohen, 2002; Cunynghame, 1906; Darty, 2004; Day, 1907; De Koningh, 1927; Dutton, 1966; Garner, 1962; Gollberg, 2006; Knuth, 2000; Maryon, 1971; Matthews, 1984; Newman, 1981; Pack, 1947; Rothenberg, 1969; Sanford, 1970; Seeler, 1969; Scribner, Welford, & Armstrong, 1877; Strosahl, Strosahl, & Barnhart, 1981; Von Neumann, 1961; Werge-Hartly, 2002; Wiener, 1981). To create this technique, it usually begins with a base coat of white opaque enamel, and then it is fired. After that, multiple layers will be added and fired until reaching the desired picture. This painting layers or over-painting technique should be created with finely ground enamels.

Plique-à-jour is a French term which means light of day and it looks like stained glass. It is a technique in which the light passes through transparent enamels. (Akre,
1983; Bates, 1951, 1967; Benjamin, 1978; Bovin & Bovin, 1990; Cere, 1975; Choate & De May, 1970; Cohen, 2002; Cohen & Ferster, 1982; Codina, 2006; Cunynghame, 1906; Darty, 2004; Day, 1907; De Koningh, 1927; Dutton, 1966; Gale & Little 2003; Gentille, 1968; Gollberg, 2006; King, 2001; Knuth, 2000; Maryon, 1971; Matthews, 1984; McCreight, 2004; McGrath, 1995; McGrath, 2003; Morton, 1970; Newman, 1981; Pack, 1947; Rothenberg, 1969; Sanford, 1970; Seeler, 1969; Scribner, Welford, & Armstrong, 1877; Von Neumann, 1961; Werge-Hartly, 2002; Wiener, 1981; Young, 2008). See figure 1 for the plique-à-jour enameling technique. This technique leaves the enamel open on both sides so that the light may pass through the enamel. Plique-à-jour is similar to cloisonné cells, but there is not any back plate metal to hold the enamel. It is recommended that the metal thickness should be 16 gauges. In order to create the plique-à-jour enameling technique, there are three methods that can be used. The first method to create this technique is to cut the metal cells or shapes all the way through by jewelers’ fine saw (piercing) or drilling, and usually it is created by laying the metal piece on a sheet of aluminum-bronze or mica along with wet enamels that are added into the metal cells (silver, gold, or copper); then the enamels should be dried before fusing them in the kiln (Bates, 1951; Darty, 2004; Maryon, 1971).

Apparently, this method of creating pliqué-a-jour enameling tends to be problematic if the thickness of the metal is less than 16 gauges. Due to the expansion and contraction of the metal surface in the high temperature of the kiln, the metal edges are prone to wrap-up, unevenness, or curvature. To avoid this, a new process by which the enamellist is able to use any thickness of the metal without having problems appear on
the metal surface was created by the researcher. In this method, the metal placed on a
sheet of mica, and then attaches brass pins all around the metal’s edges in order to hold it
on a heat resistant pad. After firing the enameling piece several times, the metal level
remains horizontal and even. By creating this new process, the shortcoming of this very
challenging plique-à-jour enameling technique is solved.

The second method is etched-enamel which was developed by the Japanese
(Bates, 1951, 1975; Benjamin, 1983; Choate & De May, 1970; Darty, 2004; King, 2001;
McGrath, 2003; Seeler, 1969) and it is known as “Shôtai-shippô” or “crystallized
cloisonné” (Cohen, 2002, p. 10). The process of creating plique-à-jour enameling by
using this method can be described as follows: First, soldered wires of fine gold are used
on a piece of copper to act like cloisonné cells. Second, wet transparent enamels are
applied into these cloisonné cells and left to dry. After the piece is fired, one side of the
piece is covered with acid resistance while the other side (copper) is exposed. Next, the
enameled piece is put into nitric acid to be etched (1 part nitric acid and 2 parts water).
Once the copper is totally dissolved, neutralized, and rinsed with water, it becomes a

The third method of creating plique-à-jour is to utilize capillary attraction (Bates,
1951, 1975; Untracht, 1957), capillary action (Darty, 2004), or surface tension (McGrath,
2003; Werge-Hartly, 2002). Prior to starting this enameling method, the enamellist
should create cells that are cut by a jeweler’s saw, but these cells should not exceed 5mm
in thickness (Bates, 1951). A different way to construct these cells can be achieved by
using soldered cloisonné wires (Darty, 2004; Untracht, 1957) or filigree wires (Bates,
The process of creating pliqué-à-jour enameling by using filigree twisted wires can be described as follows: First, the fine silver or fine gold twisted wires are glued together over a steel form, and then bound with steel wires. Secondly, a flux solution is applied with a brush over the twisted wires. Thirdly, solder is sprinkled over the twisted wires which consist of 72 grams of silver and 28 grams of copper over the contact points of the wires. Next, all the twisted wires are soldered together with a torch, and then the fine silver framework is removed from the steel form. After that, the piece is heated and pickled to remove the fire scale from the solder and any extra flux. Later on, wet enamels are applied into filigree wires. Finally, once the enamellist fires the inlaid enamel piece, it becomes pliqué-à-jour enameling technique with filigree twisted wires.

Ronde bosse or en ronde bosse is a French term which means round bump. It is a technique in which enameling is used on a three dimensional surface like sculpture or embossed metal which is completely covered by enamels (Akre, 1983; Darty, 2004; McGrath, 1995; Newman, 1981; Werge-Hartly, 2002).

Contemporary Enameling Styles

Contemporary enameling techniques consist of en résille, camaieu, encrusté, guilloché-moiré, stenciling, ginbari foil, impasto, counter enameling, sgraffito, multi enamel types, under-glaze, over-glaze, and metallic glaze, raku, swirling and scrolling, crackle enamel, silkscreen, foil and leaf, and sifting.

En résille is a French term, and it means hairnet (Bates, 1951, 1967). En résille is one of the rare and complicated enameling styles (Dutton, 1966; Day, 1907; Frégnac, 1965) that has not been used too often (Bates, 1951, 1967), and it is said that it is “a type
of enameling making use of finely ground colors fired into small depressions in crystal” (p. 199). As Choate and De May (1970) noted, this technique requires treating the surface with rock crystal and “the crystal in a crisscross netlike pattern with engraving tools, and fine gold wires are laid in the grooves” (p. 263).

Camaieu is also called “en camaieu,” a term dating from the mid-18th century describing a grisaille technique. It is a form of Limoges, and the opposite of grisaille (Garner, 1962; Matthews, 1984). However, in this technique, transparent enamel is laid in first beneath the white enamel or painted layers of white enamel are built-up on transparent enamel to create highlights and light areas. Cohen & Ferster (1982) stated that it is known as “painting in shades of a single color or in several tints not natural to the object or scene” (p. 309). This technique is frequently used on snuff boxes, watches, and medallions (Camaieu, 2006; Cohen, 2002; Matthews, 1984; Speel, 1998).

Encrusted is a technique that is similar to basse-taille in which the metal surface is created with the repoussé technique or in a very high relief and then the enameling is covered all over the metal surface and edges without using carborundum stone for cleaning the enamel surface (Choate & De May, 1970; Cohen & Ferster, 1982; Day, 1907). Apparently, the metal surface and enameling coats will be uneven.

Guilloché-moir is a French term for “engine-turning”. Usually, it is created by using lathes and or engraving machines (Akre, 1983; Benjamin, 1978, 1981-1988; Cere, 1975; Darty, 2004; De Koningh, 1927; Speel, 1998). Cohen (2002) stated that guilloche is “the mechanical cutting of lines on metal to create a design. Because the pattern is engraved, the reflection of light through the over coating of transparent enamel is
enhanced, and its brilliance can be seen as the piece is moved from side to side” (p. 9). It is known as another style of the basse-taille enameling technique (Darty, 2004).

Stenciling is a technique in which a stencil of paper or plastic paper placed over the metal is used to print a design, and then usually 80 mesh sieves are used to sift powdered enamel on the metal surface (Bates, 1967; Bovin & Bovin, 1990; Choate & De May, 1970; Cohen, 2002; Darty, 2004; Dutton, 1966; Farber, 1991; Clarke, Feher, & Feher, 1977; Gollberg, 2006; Hawkins, 1974; Matthews, 1984; McGrath, 2003; Rothenberg, 1969; Seeler, 1969; Taylor, 1977; Untracht, 1957; Vargin, 1968; Zarchy, 1959).

Impasto is a technique of building up thin layers of painted enamels into a relief form on the metal surface by using acid-resistant painting enamels (Cohen, 2002; Matthews, 1984).

Counter enameling is a technique in which adding enamel to the back side of the piece is done in order to protect the enamel on the front side from cracking from the expansion and contraction (Ball, 1972; Bates, 1951; Bovin & Bovin, 1990; Cunynghame, 1906; Darty, 2004; Dutton, 1966; Choate & De May, 1970; Codina, 2006; Cohen, 2002; Farber, 1991; Firefield, 1978; Franklin, 1971; Gollberg, 2006; Matthews, 1984; McCreight, 2004; McGrath, 1995; McGrath, 2003; Newman, 1981; Rothenberg, 1969; Von Neumann, 1961; Wiener, 1981; Werge-Hartly, 2002; Taylor, 1977; Zarchy, 1959). It usually consists of mixed enameling colors.

Sgraffito is an Italian term, and it means to scratch (McCleight, 2004; Sgraffito, 2006). It is enameling technique in which creating a design with a tool of unfired layer of

A multi enamel type is a technique in which creating effects from different enameling types with different melting temperatures (Cockrell, 2004; King, 2001). In this technique, it is highly recommended to use domed (King, 2001) or curved metal. First, soft enamel is applied then fired in the kiln. Next, medium enamel with a gum (Klyr fire) is placed over the surface and left to dry. Then, the piece is fired in the kiln. Next, another layer of soft enamel is applied and fired. Later on, transparent enamel is sprinkled on and fired until the design starts to slip down, but it should be taken out from the kiln quickly as the enamel begins to build up at the bottom or edges of the piece. Usually this technique is used with sgraffito (King, 2001). The multi enamel type’s technique generates random and decorative designs.

Crackle or Crazed enamel is a technique of using liquid enamel that is prepared to crack over any ordinary enamel “over pre-fired enamel” (Ball, 1974; Clarke, Feher, & Feher, 1977; King, 2001; Taylor, 1977) or by using hard enamel over soft enamel (Dutton, 1966). This technique causes decorative and random patterns (Ball, 1972), and it is typically used with sgraffito (Ball, 1974).

Under-glaze, Over-glaze (On-glaze or On-enamel) (Day, 1907), and Metallic glaze (Luster) (Werge-Hartly, 2002) is a technique in which finely grounded enamels are
applied under or over the enameling coats to create a new coat, design, or effect (Bates, 1951, 1967; Clarke, Feher, & Feher, 1977; Codina, 2006; Cohen, 2002; Cockrell, 2004; Darty, 2004; Day, 1907; Farber, 1991; Matthews, 1984; McGrath, 2003; Newman, 1981; Rothenberg, 1969; Seeler, 1969; Untracht, 1957). Werge-Hartly (2002) said that lustre’s are “…often called liquid gold” (p. 126). Under-glaze pencils or regular pencils can also be used to draw on the first fired enameled surface before firing the piece for the second time (Cockrell, 2004; Darty, 2004).

Raku is a technique of placing the hot enameled piece in a closed atmosphere, like a sealed container that is filled with sawdust, papers, leaves, and other flammable materials in order to react with each other and create a reduction environment that affects the enamels’ colors. The effects will depend on the use of flammable materials, colors, lines, and oxides in the enamels, and it depends on the speed in removing the piece from the kiln into a sealed container (Ball, 1972; Cockrell, 2004; Matthews, 1984; Raku, 2006; Tudor, 2001; Werge-Hartly, 2002). According to Cohen (2002), raku is “a technique in which hot enamel that includes oxides is smoked, resulting in iridescent colors” (p. 11).

Swirling orScrolling means to move around. This enameling technique can be achieved in two ways. First, it is a technique in which the enamellist uses a pointed rod to mix and move fused enamels while the hot piece still is in the kiln in order to have particular effects with colors. This technique is sometime called trailing (Firefield, 1978; Franklin, 1971) or stirring and it can produce marbled effects (Dutton, 1966). Second, it is a technique of moving the cold liquid enamel with a tool in order to create a special effect like marbling. It should be created with liquid enamel before firing the piece.
Silk-screening is a transferred design on fine silk which is held in a frame (Darty, 2004; Matthews, 1984; Vargin, 1968). Cohen (2002) pointed out that silk-screening is “a technique in which designs on material mesh, such as silk, polyester, or nylon, are transferred onto an enameled base” (p. 11). This enameling technique is identified as a printing method.

Foil and leaf is a technique that uses foils or paillons (gold, silver, and copper) under the transparent or opalescent enamels in order to provide a variety of effects or highlight certain parts. It is widely used with fine wires to create cloisonné (Bovin & Bovin, 1990; Choate & De May, 1970; Farber, 1991; Clarke, Feher, & Feher, 1977; Cockrell, 2004; Darty, 2004; Dutton, 1966; Franklin, 1971; Matthews, 1984; McCreight, 2004; McGrath, 1995; Knuth, 2000; Pack, 1947; Rothenberg, 1969; Werge-Hartly, 2002; Taylor, 1977; Young, 2008). A good method to attach enamels over foils is to place the foil over emery paper and then tape it with a soft brass brush. This process allows very tiny holes to be made into the foil surface which later helps to prevent the air or bubbles to be generated under the foil. Another technique of foil with enameling is called Ginbari foil. Cohen (2002) stated:

Ginbari foil is a technique developed in Japan that uses a foil design made with an embossing plate. This is an excellent technique for reproducing a design, as the
embossing plate is reusable. It somewhat has the look of cloisonné; however, the “lines” are not wire, they are embossed foil. (p. 9)

Sifting is a technique of using a fine meshed sieve to sprinkle or dust enamel over the metal surface (Darty, 2004; Farber, 1991; Clarke, Feher, & Feher, 1977; Firefield, 1978; Hawkins, 1974; Werge-Hartly, 2002; Zarchy, 1959).

In reference to vitreous enameling arts, it is important to note that all of these traditional and contemporary enameling techniques have a rich art history that should be examined.

**Enameling Art History**

Enameling has a great recognized art history. It has been well-known for centuries. Although the Egyptian civilization practiced glassmaking for a long time, which is considered to be the main component of enameling, there is not any evidence about fused enamels used by the ancient Egyptians to inlay their objects and or jewelry (Bates, 1951, 1975; Day, 1907; Werge-Hartly, 2002). Stones, glass, and different colors were used by Egyptian artist’s to inlay items and/or jewelry (Bates, 1951, 1975; Scribner, Welford, & Armstrong, 1877). However, the first enameled objects were found in Cyprus (Liban & Mitchell, 1980; Von Neumann, 1961). The enameling technique has a unique heritage and represents many cultures. Therefore, in order to understand the history of the enameling technique, we should discuss Greek, Celtic, Byzantine, German, Italian, Chinese and Japanese, French, English, Russian, Indian Enamels, and Enameling in late centuries in both chronological and influence orders.
**Greek Enamels**

In the 4th century B.C., an ancient Greek goldsmith used a raised outline of gold wire which is known as the cloisonné technique to inlay flowers and other small designs (Bates, 1951, 1975; De Koningh, 1927). However, enameling is widely known in civilizations since the 5th century B.C. (Cohen 2002; Ellis, 1997; Liban & Mitchell, 1980; Morton, 1970). In the 4th and 5th centuries, the Greeks not only used enamels in their jewelry (Dutton, 1966), but objects of ancient Greek sculpture were also inlaid with a coat of enamel (Bates, 1951; Dutton, 1966). A good example of ancient Greek art that was decorated with enamels is the Phidias statue of Zeus on its figures and flowers (Bates, 1951; Cohen 2002; Dutton, 1966). Dutton (1966) indicated that “The Greeks often used enamel for the eyes of their statues, which gave them a rather staring look” (p. 64). From around the 6th century B.C., the Greek utilized enamels with a twisted wire which is known as filigree decorations on the gold jewelry (Palmer, 2003). Therefore, the Greek artists used enamels to decorate valuable objects and possessions to represent beauty.

**Celtic Enamels**

In Europe, the Celts used a metal strip and enamel which is known as the cloisonné technique in the 6th century B.C. (Palmer, 2003). Also, the Celts started to use enamels in the 1st century B.C. (Darty, 2004). Ellis (1997) mentioned that “Caesar found the Celtic inhabitants of Britain enameling in the 1st century B.C.” (p. 1). Later, in the 3rd century A.D., the Celts of the British Isles used enameling in some objects (Liban & Mitchell, 1980). “We attribute the earliest records of a type of enameling known as
champlevé to the Celts” (p. 4), according to Bates (1975). They used fused enamels on bronze surfaces in order to decorate shields, horse trappings, and swords (Darty, 2004). These decorated shields and swords with enamels were hardened and formed with a twisted wire which is known as filigree decorations (Bates, 1951, 1975).

At that time, the artists filled the melted colored enamels in the bronze mold which is known as champlevé enameling technique (Bates, 1951; Darty, 2004; Dutton, 1966). Enameling was not only used to decorate their shields, but also used to decorate brooches, holy objects, and horse trappings (Dutton, 1966). In the early of 5th century, cloisonné and champlevé enameling techniques were found in belt buckles, sword hilts, sheaths, coins, and helmets (Strosahl, Strosahl, & Barnhart, 1981). From the 6th to the 9th century A.D., the Celts and Saxons left several examples of inlaying enamel into metals (Bates, 1951) where they used “…mainly lapis blue, deep red, and white” (Dutton, 1966, p. 65). A good example of the 9th century for Celtic enamels is Alfred brooch (Morton, 1970). Thus, enameling was utilized to decorate artifacts and other objects in the Celtic period.

Byzantine Enamels

The motive behind transforming enameling techniques from the north countries to the Byzantium area is unknown. During the flourishing Byzantine era, the cloisonné enameling technique was used between the 9th and 10th century (Bates, 1975; De Koningh, 1927; Morton, 1970). It was made in a “…stylized and complex figurative art form” (Werge-Hartly, 2002).
Bates (1951) stated:

The beautiful cloisonné work of the Byzantines also suggests a Persian derivation. A possible theory is that the art of enameling spread westward to Byzantium from Persia, the northern Caucasus, Egypt, Asia Minor, South Russia and the Danube and, at the same time, eastward from the British Isles. (p. 24)

It looks like that the connection between the different cultures led to transporting enameling techniques to Byzantine. However, dating from the 8th to 12th century, Byzantine cloisonné enameling was well recognized for its ornamental designs with pure colors on gold and an alloy of gold and silver (Benjamin, 1983). In the European churches, the works of Byzantine cloisonné are found (Bates, 1951; Strosahl, Strosahl, & Barnhart, 1981). These Byzantine cloisonné were full of religious designs and icons (Bates, 1951; Dutton, 1966; Ellis, 1997; Palmer, 2003). The Christian religion’s influence was not the only reason behind spreading the religious designs (Bates, 1951). During the 10th and 11th century, Byzantine enamels were not only used in churches, but were also used to decorate objects, bracelets, rings, brooches, and crowns (Bates, 1951). In other objects, such as jewelry, private architecture, and religious architecture, Byzantine enamels were also used (Barsali, 1969). At that time, their enameled pieces were focused on red, blue, yellow, white, black, and sometimes with green and purple colors (Dutton, 1966). Later on, the knowledge of enameling art moved to Europe through the Rhine and other large rivers (Dutton, 1966).
German Enamels

The enamels of Byzantine Empire strongly influenced the work in the western world (Bates, 1975). In German towns, the artists taught the knowledge and the tradition of enameling to other people (Bates, 1951). In the 11th and 12th centuries, enameling in Germany was initiated (Bates, 1975). In the 12th century, the Germans artists were not satisfied to use only one technique to create artwork. Thus, they combined the cloisonné and champlain techniques and gilding (Bates, 1951, 1975; Benjamin, 1978, 1983), and sometimes they joined enameling techniques with precious stones (Bates, 1975). Also, their production of champlain was more complicated. Moreover, Germans enamellists were well-known for their preferences to mix enameling colors (Day, 1907). Enameling was used to decorate reliquaries, crosses, portable altars, caskets, plaques, alter pieces, religious work, and other objects (Bates, 1951, 1975). At that point in time, opaque colors were used rather than transparent because of the tin substance in bronze that makes the color dull or unclear (Bates, 1951). During the late 15th and early 16th century, enamels were used to decorate jewelry (Barsali, 1969). The German artists, Christoph Jamnitzer, Friedrich Hildebrandt, and Christopher Lencker, used translucent on a high relief surfaces during the 17th century, (Barsali, 1969).

Italian Enamels

In the 11th century, enameling was brought by Byzantine goldsmiths because of their visit to Italy by Desiderio (Barsali, 1969). The results were that the Byzantine and Arab jewelers taught the Italian goldsmiths how to produce “…enamels in the style of Byzantium” (Barsali, 1969, p. 35). The basse-taille technique was created in the 11th
century (Strosahl, Strosahl, & Barnhart, 1981). Another evolution in Italian enameling art was when the painted enamels were transported from Limoges (Barsali, 1969), and later these painted enamels were used in Italy in the 15th century (Barsali, 1969; Benjamin, 1978). In that century, opaque enamels were widely used on the church plates (Barsali, 1969). It was also used “…for great narrative purposes” (Barsali, 1969, p. 99). During the late 15th and early 16th century, the enamel works were artistically characterized with gothic miniatures and paintings, and enamels were used to decorate jewelry in Florence and Venice (Barsali, 1969). It is obvious that enamelwork allowed enamellists to express what was in their imagination in new artistic ways.

**Chinese and Japanese Enamels**

Enameling is found in the 9th century B.C. in Asia (Morton, 1970). However, after the 13th century, when the Mongolian Empire invaded China, enameling appeared (Bates, 1951, 1967; Benjamin, 1983; Dutton, 1966). Also, Darty (2004) noted that enameling was introduced to China “…from an Islamic source” (p. 106) in the middle of the 14th century. Bates (1975) also said that enameling appeared in China when they communicated with the West in the 14th century. Furthermore, enameling is believed to have been exported to China through the Silk Road at that time. The Silk Road land and sea routes connected many cultures and civilizations with many arts and crafts including enameling. According to Grotenhuis (2002), “The Silk Road refers to trade routes that extended from Japan and China in East Asia across Central Asia, south to India, and west across the Iranian plateau and other lands to the Mediterranean” (p. 15). Thus, the Silk Road facilitated trade between countries so that items, crafts, and arts transferred to other
places easily and quickly. Cloisonné, for instance, was the first technique found in China during the second quarter of the 14th century (Bates, 1975; Darty, 2004; Dutton, 1966).

The Chinese used champlevé enameling and sometimes it was combined with cloisonné (Benjamin, 1978; Palmer, 2003). Cloisonné is the most common enameling technique that is has been used extensively in China since the 15th century (Bates, 1975; Benjamin, 1978, 1983; Garner, 1962). Bates (1975) described that enamels “…became quite realistic, with careful shadings and details” (p. 13). Plants, flowers, landscapes, human figures, animals, birds, dragons, phoenixes, ogres, and lions were used as designs in the Chinese enameling art objects (Benjamin, 1983). Chinese craftsmen decorated their objects with enamels, and they used enamels on tea-pots, tea-cups, drinking cups, and vases (Chaffers, 1869). In addition, the Chinese enamellers were recognized for combining enameling colors (Day, 1907). Between 1713 and 1735, due to the popularity of the painted enamels from Limoges, the Chinese enamellists started to use cloisonné and painted enamels together while creating personal objects (Bates, 1975; Benjamin, 1978).

Also, cloisonné was carried to Japan from China in the late of 15th century by Hirata Dōnin (Bates, 1951, 1975; Benjamin, 1983). In Japan, enameling is known as *shippo*, which means “seven treasures” (Benjamin, 1983; Cohen & Ferster, 1982; Garner, 1962). Benjamin (1983) stated that “The final effect of a piece of enameling was akin to seven precious things: gold, silver, emerald, coral, agate, crystal, and pearl” (p. 45). Human figures, animals, clouds, leaves, birds, butterflies, flowers, landscapes, dragons, sea creatures, and frets are the main motifs that are used by the Japanese to decorate
enameling art items (Bates, 1951, Benjamin, 1983 Cohen & Ferster, 1982). Vessels, trays, vases, urns, bowls, and boxes are the most typical objects that were made by the Chinese and Japanese (Bates, 1951; Benjamin, 1983). Sword attachments were also decorated with cloisonné enameling technique (Benjamin, 1978). At that time, an interesting point to note is that the Japanese enamellist’s attached the cloisons cells with gum instead of using solder which offers another possibility of creating the cloisonné enameling technique (Day, 1907). The Japanese enameller’s capabilities in creating objects with enameling techniques were exceptional. For instance, they were well-known for blending enameling colors (Day, 1907). Bates (1951) noted that “Japanese enamels have been always been of a meticulous nature, reflecting the patience and assiduousness of the oriental mind, which is well trained to meet the demands of the medium” (p. 5).

Thus, the Japanese enamellists examined different enameling techniques, and developed new methods to achieve them such as placing silver foil on the copper surface and then created several types of cloisonné techniques, another kind of plique-à-jour technique, and another kind of painted enamels technique (Cohen & Ferster, 1982).

There are many methods to create the plique-à-jour enameling technique. One of the methods to create the plique-à-jour technique was developed by the Japanese, and it is called shōtai-shippō or etched-enamels (Benjamin, 1983). By the 1780s, the Japanese samurai, Namikawa Yasuyuki, who was known as the greatest master in the cloisonné technique, lived in the Golden Age of Japanese cloisonné (Cohen & Ferster, 1982). His visions and capabilities made him extraordinarily successful and a pioneer in the cloisonné enameling art. In the mid of 19th century, cloisonné enameling pieces were
known with its full range of floral designs; in the later part of 19th century, large scale items with translucent colors in plique-à-jour technique were created (Benjamin, 1978). During the late 19th and 20th century, the ultimate skills of the Japanese enamellist in the enameling art motivated them to develop and adapt other methods in order to compete with the French enamellers (Bates, 1975).

To sum up, the Silk Road assisted in transporting enameling art into the mid-west of Asia and other countries. The Chinese and Japanese enamellists used enameling art to ornament many personal and luxury objects and to represent the aesthetic qualities of their cultures. The reputation of the painted enamels from Limoges opened new challenges to learn and develop new methods in enameling art. Thus, the Japanese enamellists examined and developed new ways of creating enameling arts.

*French Enamels*

The French discoveries of the new enameling techniques were well acknowledged in Europe. The enamellists’ performances and creations led them to be role models in the enameling arts. During that time, enameling techniques played a major part of the French cultural heritage. In the 12th century, champlevé enameling flourished (Benjamin, 1978, 1983; Darty, 2004; Palmer, 2003; Von Neumann, 1961). A hundred years later, the basse-taille enameling technique which is another version of champlevé was developed (Morton, 1970; Palmer, 2003; Von Neumann, 1961).

Later, between the 13th to 15th centuries, the plique-à-jour enameling technique grew (Benjamin, 1983; Morton, 1970; Palmer, 2003) and it was experienced during the renaissance period in France. This technique is regarded to be the hardest one because it
requires a lot of time with little tolerance for error. Besides, the piece is very fragile while using carborundum stone for cleaning the enamel surface. Thus, the enamellist needs to have great skills and to be more experienced in order to complete the enamel piece.

Enamels were applied to spoons, cups, bowls, and dishes for decoration (Benjamin, 1978). It is known that there are three different methods to create a plique-à-jour enameling piece. By the end of 14th century, another enameling technique was created which is known as ronde bosse (Benjamin, 1983). This enameling technique is used to decorate only three dimensional gold figures and or embossed reliefs (Matthews, 1984).

Since the 12th century, painting with enamels appeared in the French town of Limoges (Bates, 1951; Morton, 1970; Scribner, Welford, & Armstrong, 1877; Von Neumann, 1961). In the 15th century, the French enamellists generated a new painting style which is called grisaille (Barsali, 1969; Benjamin, 1983; Darty, 2004; Dutton, 1966; Von Neumann, 1961). The great master in enameling, Léonard Limousin (1505-1577), discovered the grisaille technique (Newman, 1981). Jean Penicaud was another expert and highly skilled in the grisaille technique (Barsali, 1969). During that century, due to the popularity of enameling, this art form was done on “Portraiture, classical subjects, and religious illustrations…” (Bates, 1975, p. 23). Between 1619 and 1624, another enameling technique was known which is called en résille. This kind of enameling technique is considered to be the most complex one to create. During the first years of the 16th century, enamels of low-relief and translucence led artists in Limoges (Chaffers, 1869).
During the 15\textsuperscript{th} and 16\textsuperscript{th} when the Limoges technique increased, the enamellers produced pictures on the copper surfaces of cups, vases, ewers, medallions, caskets, and hunting-horns (Darty, 2004; Palmer, 2003; Scribner, Welford, & Armstrong, 1877). A good example was Léonard Penicaud, who was also known by the name of Nardon Penicaud (Day, 1907), the first to cover the copper with opaque white and then worked on it with black enamel (Bates, 1951). Attractive color combinations, color harmonies, and well-balanced compositions were the obvious features of the Limoges enamels (Barsali, 1969). Furthermore, during the 16\textsuperscript{th} century, French enamellists were the earliest who created the counter-enameling technique, and they discovered that by applying enamels on the back of the piece, the enameled colors will not be cracked after the firing process (Dutton, 1966). At that time, another discovery of French enamellists was firing the multi enamel layers upon one another (Dutton, 1966). As a result of this creation, painted enameling techniques were developed (Dutton, 1966). During the late 15\textsuperscript{th} and early 16\textsuperscript{th} century, jewelry was decorated with enamels using this technique (Barsali, 1969).

In the 16\textsuperscript{th} century, Léonard Limousin, Jean Penicaud, and Pierre Reymond were considered the skilled famous enamellists who developed the art of portraiture in enamels (Cohen, 2002; Cunynghame, 1906; Darty, 2004). In the Limousin era, many works of art are found like portraits, miniatures on fancy snuff boxes and micros for Francis I and Louis XIV (Dutton, 1966). In 1532, Léonard Limousin, the master of enamels, painted and made large ornamental plaques (Chaffers, 1869). He also made figures of saints, cups, and bowls. Chaffers (1869) noted about the art of Léonard Limosin:
He is specially distinguishable by a tint of bright yellow, which he always puts in the hair, as also by pink and limpid flesh tints, which add to the delightful feeling of surprise caused by these enamels, and have something of the brilliancy of an ever-changing satin. No one knew so well as he how to make use of golden touches wherewith to ornament his medallions or his designs on a back ground. (p. 231)

Additionally, he created several artworks of Raphael as well as “…portraits and the paintings of domestic and religious scenes (Chaffers, 1869, p. 232). Léonard Limosin’s art work can also be found in the household decorations, portraits, and in some furniture (Chaffers, 1869). In Paris, he became the king’s enameller and he created several portraits of princes and courtiers (Barsali, 1969; Cunynghame, 1906). Currently, some of his art objects such as ink-stands, candlesticks, chessmen, and vases are exhibited at the Louvre (Chaffers, 1869). During the sixteen century, enamellers of Limoges created enameled copper buttons to be used in fashion (Chaffers, 1869).

Later in the 16th century, objects such as ewers, salt cellars, and other articles were decorated with enamels (Chaffers, 1869). At that time, convents, churches, and chapels sold badges that were decorated with figures of saints, and these badges were “…, supposed to have the power of curing every description of malady possible” (Chaffers, 1869). Later in the middle of the 18th century, the enameling technique which is known as guilloché-moiré “engine-turning” was invented with its complex patterns (Darty, 2004; De Koningh, 1927). Guilloché-moiré is considered to be a new version of
the basse-taille technique (Palmer, 2003). Finally, silver and gold foils were used to enhance brightness of transparent enamels in the 18th century (Darty, 2004).

In conclusion, enameling is used to decorate luxury items, fashion, and religious objects and places. Throughout the centuries, it appears that the French enamellists created enameled artworks that were full of aesthetic values, artistic visions, skills, and new techniques. Their uniqueness and artistic qualities aided the enamellists to illustrate their thoughts, ideas, and feelings through diverse colors and tones in beautiful and meticulous ways. The evolution in enameling techniques allowed the French to play a critical role for spreading this kind of art in Europe and other places. Unfortunately, these new enameling techniques were not discovered in France due to World War I and II. Moreover, by the end of World War II, a lot of things changed and the center of the art world shifted from Paris to New York (Efland, 1990).

English Enamels

In the 12th century, only a few champlevé items were found in England. The basse-taille enameling technique was popular during the 14th century and it was found in the English Crown (Benjamin, 1978). From the period of 1547 to 1619, enameled pieces were found that contain a combination of champlevé and cloisonné along with a variety of colors (Benjamin, 1978). The enameled English artworks prospered between the middle of the 17th until the middle of the 18th century (Bates, 1951). In the latter part of the 17th century, the English enamellists were well-known for creating beautiful small boxes using the Limoges technique on a metal surface (Benjamin, 1978). These small boxes frequently have a white background along with detailed painted enamels on the
surface (Benjamin, 1978). At that time, there were only few factories which produced enameling artwork.

Battersea, Bilston, Wednesbury, Liverpool, and Birmingham were the factories to fabricate small boxes, dishes, plaques, snuff boxes, lavaliere, jewelry cases, mirror frames, lamp bases, wine labels, and novelties in the 18th century (Bates, 1951, 1975; Benjamin, 1978; Hughes & Hughes, 1967; Palmer, 2003; Scribner, Welford, & Armstrong, 1877). Battersea was a popular factory that produced enameling art during 1753 to 1756 (Bates, 1951, 1975; Benjamin, 1978; Hughes & Hughes, 1967; Strosahl, Strosahl, & Barnhart, 1981). Benjamin (1978) said that due to the popularity of enameling styles, the artists’ awareness and interests increased regarding enameling arts which led them to use enameling as a medium more. As a result of this, the French enameller Adrien-Pierre went to the South Kensington Museum to teach the English artists’ how to create painted enamels (Benjamin, 1978). For example, the English watchmakers used to paint with an enameling technique which spread from France to England (Benjamin, 1978; Palmer, 2003). Birds, flowers, scrolls and pastoral scenes were often seen in their enamelwork (Bates, 1975). In 1839, liquid enamels were used for the first time in England (Darty, 2004). During the third quarter of the 19th century, the guilloché-moiré technique spread into many workshops (Benjamin, 1978; Darty, 2004); and it was also known in other countries like Russia.

**Russian Enamels**

The history of Russian enamels was influenced by the Byzantine Empire (Bates, 1951; Benjamin, 1983). By the third and fourth century A.D., cloisonné on gold and
champlevé on copper were used in different places in Russia. The Russian cloisonné is well known for its lower level of enamels in the small cells or cloisons. In regards to the Russian cloisonné enameling technique, it seems that the Russian enamellists intentionally avoided cleaning with carborundum stone the enamel’s surface after finishing firing the piece; thus, they created their cloisonné technique with a lower level of enamels in order to save time, effort, and materials. Alternatively, the skillfulness of the Russian enamellists permitted them to use the filigree wires with other enameling techniques. Thus, the plique-à-jour enameling technique was performed with a twisted wire, which is known as filigree, and decorated with transparent colors. The most notable examples of this plique-à-jour enameling technique with filigree artwork was done by the Russian enamellists in the form of necklaces, chains, demitasse spoons (Bates, 1951), cups, bowls, and dishes (Benjamin, 1978).

During the 14th and 15th century, the basse-taille enameling technique was used a lot to decorate large parts of metal (Benjamin, 1983). The main characteristic of Russian art during the 16th century is *skan* enameling; *skan* enameling is a combination of filigree and cloisonné (Benjamin, 1983; Cere, 1975). Bates (1951) pointed out that “By adding elaborate twisted, braided or filigreed wire, Russian and South Slavonic people attained a different, rather dazzling effect” (p. 34). Furthermore, in the 16th century, Russian enameling art was affected by the Mongolian invasion (Benjamin, 1983).

At the beginning of the 19th century, *Fabergé* enamel works first appeared, which were named after the Russian goldsmith, Peter Carl Fabergé (Bates, 1975). His extraordinary skills let him to create enameled eggs, snuff boxes, cigarette cases, clocks,
picture frames, powder boxes, scent bottles, and bonbonneries (Bates, 1975).

Furthermore, Bates (1975) stated about Fabergé that “In his studio he kept a series of 144 tests of transparent enamels, each being shown on an engine-turned or hand engraved metal surface” (p. 17). At that time, engine-turned is known as the guilloché-moiré enameling technique which was used by the Russians enamellists for producing a wide variety of objects in the late 19th century (Darty, 2004). Recently, Valeri Timofeev is regarded one of the finest and expert enamellist, who has created plique-à-jour enameling with filigree artwork (Darty, 2004; Helwig, 1992).

**Indian Enamels**

Enameling is regarded as an important art form that represents the Indian heritage. It is recognized that enameling was introduced to India through the Islamic world, Central Asian “Moghuls or Mughals”, and West Asia Persians (Mathur, 2001; Nigam, 1999). During the Moghal Empire in the 16th century, enameling appeared in India (Bloom & Blair, 1997; Newman, 1981; Nigam, 1999; Sharma & Vradarajan, 2004). Enameling was introduced and taught in India due to the European jewelers who came to the royal Mughal workshops during the 16th and 17th centuries (Bloom & Blair, 1997; Jenkins, 1983). Many pieces of Indian jewelry were made for the Mughal empire during 1526 to 1707 (Barnard, 2008; Bloom & Blair, 1997; Newman, 1981). After that, enameling art spearheaded in the Indian nation.

In India, the enamel on metals is well-known as *meenakari* or *minakari* (Barnard, 2008; Benjamin, 1983; Mathur, 2001; Nigam, 1999; Sharma & Vradarajan, 2004). The enameled pieces are inlaid with precious stones, and they are designed with flowers,
birds, leaves, trees, figures, and animals (Benjamin, 1983; Mathur, 2001; Nigam, 1999). The champlevé enameling technique is mainly used by the Indian enamellists (Benjamin, 1978, 1983; Bloom & Blair, 1997; Jenkins, 1983; Keene, 2001; Mathur, 2001; Newman, 1981; Qadome, 1987). Furthermore, the champlevé enameling technique is often used on the back of jewelry with floral designs, and outstanding Indian enamellists used red, green, blue and white enamels to enrich jewelry and to decorate metals (Newman, 1981). Dutton (1966) noted that the champlevé enameling technique is often seen in “…bright enamels leaves and animals, contrasting with metal” (p. 80). The translucent red is the most common color that is used to decorate art pieces and jewelry (Nigam, 1999). Green, blue, and white enamels are also used to decorate objects and jewelry.

In India, enamels are used to decorate small boxes, dishes, gold cups, spoons, bowls, plates, small and large vases, bells, personal regalia, jeweled swords and daggers, rings, ear-rings, bracelets, necklaces, pendants, armlets, archer’s thump rings, fans, camel trappings, sleeve links, cars cases, match boxes, whistles, anklets, bangles, containers for sipping liquors, chess pieces, and a range of objects (Bates, 1975; Dutton, 1966; Mathur, 2001; Nigam, 1999; Sharma & Vradarajan, 2004). Jaipur, Delhi, Agra, Varanasi, and Lahore are the most famous cities for using enameling techniques up to the present time (De Koningh, 1927; Mathur, 2001; Sharma & Vradarajan, 2004). In Jaipur, the best enamel artworks were made, and the most common enamel color in the items was red (Bates, 1975; Nigam, 1999). Bates (1975) described a unique piece that was done by a group of craftsmen working for the Maharaja Man Singh of Jaipur, and he said:
This fantastic piece is composed of 32 cylinders, each enameled with figures, followers, animals, and landscapes… This piece took 10 firings for each segment, which represented 3000 rupees worth of gold and took 6 years to complete… Each enamel was applied according to hardness in the following order: white, blue, black, yellow, pink, green, and red. (p. 9)

These days, Sardar Kudart Singh, who is over eighty years of age, is considered one of grand master of meenakari in Indian (Benjamin, 1983; Mathur, 2001). In India, enameling art represents the cultural heritage and Islamic culture. Islamic arts and culture can be distinguished through many pieces of jewelry and objects from the Mughal era (Bloom & Blair, 1997; Jenkins, 1983; Keene, 2001; Qadome, 1987; Sharma & Vradarajan, 2004). Moreover, most of the Mughal jewelry is owned by the Al-Sabah collection in the State of Kuwait. With regard to Al-Sabah collection, it is very easy to observe a wide range of enameling techniques like champlévé in the Islamic arts (Bloom & Blair, 1997; Jenkins, 1983; Keene, 2001; Qadome, 1987).

**Enameling in the Late Centuries**

Enameling art was more admired in the late centuries. In the 17th century, the painted enamels were taken by European missionaries for copying to Canton and Peking (Palmer, 2003). During the 17th, 18th, 19th, and early 20th centuries, enameling production is widely spread (Ellis, 1997). However, in the 18th century, the shift from gold to copper occurred, because of the fashion and the desire to create enameled artworks like little boxes with hinged lids (Benjamin, 1983; Palmer, 2003), and a new version of the basse-taille enameling technique which is known as guilloché-moiré appeared which was used
to decorate metal (Darty, 2004; De Koningh, 1927). Enameling also earned great popularity in the 19th century (Morton, 1970). Later, in the 20th century, the enamellists used different methods and new techniques in order to create artistic visions in unique ways. They created new enameling techniques such as sgraffito, raku, stenciling, swirling, scrolling, cracking, silkscreen, foil and leaf, luster, under-glaze and over-glaze. Currently, Harlan Butt, for instance, is considered one of the finest and most professional enamellist who has created enameling artworks that combine cloisonné and other traditional and/or contemporary enameling techniques (Darty, 2004). Finally, even though enameling has been recognized for decades, the usage of it declined due to the people’s interests and the development of new metal techniques (Barsali, 1969).

In conclusion, the enameling art is well-known throughout many centuries. It represents many cultures and civilizations. As noted from the last centuries, several themes are used through enameling as a medium to express the artist’s thoughts and feelings towards certain things and events, and it is widely utilized to decorate luxury items of personal use. In regards to enameling art history, it seems that several cultures created, developed, and influenced other cultures with enameling experiences and techniques. For instance, Indian enamels represent Islamic art, and until this present time, it’s a part of the Islamic cultural heritage.
APPENDIX C

THE IRB APPROVAL FROM THE UNIVERSITY OF NORTH TEXAS
March 6, 2009

Ali Darweesh
Department of Visual Arts and Design
University of North Texas

Re: Human Subjects Application No. 09094

Dear Ali Darweesh:

As permitted by federal law and regulations governing the use of human subjects in research projects (45 CFR 46), the UNT Institutional Review Board has reviewed your proposed project titled "The Enameling Arts in Kuwaiti Pre-Service Art Teacher Education." The risks inherent in this research are minimal, and the potential benefits to the subject outweigh those risks. The submitted protocol is hereby approved for the use of human subjects in this study. **Federal Policy 45 CFR 46.109(e) stipulates that IRB approval is for one year only, March 6, 2009 to March 5, 2010.**

Enclosed is the consent document with stamped IRB approval. Please copy and use this form only for your study subjects.

It is your responsibility according to U.S. Department of Health and Human Services regulations to submit annual and terminal progress reports to the IRB for this project. Please mark your calendar accordingly. The IRB must also review this project prior to any modifications.

Please contact Shelia Bourns, Research Compliance Administrator, or Boyd Herndon, Director of Research Compliance, at extension 3940, if you wish to make changes or need additional information.

Sincerely,

Patricia L. Kaninski, Ph.D.
Associate Professor
Chair, Institutional Review Board

PK:ab

CC: Dr. D. Jack Davis
APPENDIX D

QUESTIONNAIRE FOR THE PRE-SERVICE ART TEACHERS AT
THE COLLEGE OF BASIC EDUCATION
Dear Prospective Art Teachers,

As a prospective art teacher, you have been invited to participate in my doctoral study. Your valuable participation will offer me the required information for my study. The main objectives of this questionnaire are to gather general information concerning knowledge, skills, experiences, perceptions, and attitudes towards enameling art.

The results of this questionnaire will be included in my dissertation at the University of North Texas. Please note that your participation will help to satisfy the requirements for a Doctoral degree in the Art Education. This questionnaire consists of three pages and will only take 15 minutes to complete.

Please be advised that your all responses to this survey will be kept confidential. If you are interested in knowing more about the research findings, then I will be more than happy to send you the results upon your request. In addition, your contribution in this study will help in determining the need for developing an enameling course in Kuwait and will assist to provide a base of information for the initiation of future enameling programs in the country.

Your cooperation is greatly appreciated.

Thank you,

The researcher: Ali Darweesh                                      Research advisor: Dr. D. Jack Davis
Email: ahd0014@unt.edu                                             Email: davis@unt.edu

College of Visual Arts and Design
University of North Texas
P.O. Box 305100
Denton, TX 76203
Telephone (940) 565-395

------------------------------------------------------------------------------

• The researcher has explained the study to me and answered all of my questions. I have been told the possible benefits and the potential risks and/or discomforts of the study.
• I understand that I do not have to take part in this study, and my refusal to participate or my decision to withdraw will involve no penalty or loss of rights or benefits. Also, I know that I may choose to stop participation in this study at any time.
• I understand why the study is being conducted and how it will be performed. I understand my rights as a research participant and I voluntarily consent to participate in this study.
• I have been told I will receive a copy of this form upon my request.

________________________________                                ____________
Signature of Participant                                     Date
Instructions: Please read each statement carefully and then check (✓) the response that best shows your opinion.

- Part 1: Demographic Information:
1. Name: (optional).............................................................................

2. Gender:
   Male □   Female □

3. Year in College:
   First Year □   Second year □   Third Year □   Fourth Year □   Fifth Year □

4. Age:
   18-22 □   23-27 □   28-32 □   33 + □

- Part 2: Perceptions & Training Experiences:

Instructions: Please read each statement carefully and then check (✓) the response that best indicates your opinion.

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<th>No</th>
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<td>Do you think that the pre-service art teachers are well-prepared in metal classes at the College of the Basic Education?</td>
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<tr>
<td>6</td>
<td>Have you ever heard of enameling?</td>
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<td>7</td>
<td>Have you ever experimented with enameling at home?</td>
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<td>8</td>
<td>Have you ever tried out enameling at school in the art classes?</td>
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<td>9</td>
<td>Have you ever experimented with enameling at College?</td>
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<td>Have you ever received any type of enameling training?</td>
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<td>If Yes, then where did you receive your training?</td>
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<th>One class</th>
<th>Two classes</th>
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<td>How many metal classes did you complete in the College of Basic Education?</td>
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- Part 3: Knowledge & Skills:

**Instructions**: Please mark (✓) or write the best word that describes your response for each statement and question.

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<th>Good</th>
<th>Fair</th>
<th>Not Good</th>
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<td>13.</td>
<td>My metalsmithing art skills in general</td>
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<td>14.</td>
<td>Information about enameling art in the metalsmithing course at CBE</td>
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<td>15.</td>
<td>My knowledge about enameling art in general</td>
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<td>16.</td>
<td>My skills about enameling art in general</td>
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<td>17.</td>
<td>My knowledge regarding the traditional techniques in the enameling art</td>
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<td>18.</td>
<td>My knowledge regarding the contemporary techniques in the enameling art</td>
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<td>19.</td>
<td>My knowledge about the history of enameling</td>
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</table>

20. Do you know any kinds of traditional enameling techniques?  No □ Yes □

   **If Yes**, please indicate them

21. Do you know any kinds of contemporary enameling techniques?  No □ Yes □

   **If Yes**, please indicate them

22. Are there any relationships between enameling and Islamic culture?  No □ Yes □

   **If Yes**, (Please specify)?

23. Did you learn some skills in traditional enameling techniques?  No □ Yes □

   **If Yes**, please indicate them

24. Did you learn some skills in contemporary enameling techniques?  No □ Yes □

   **If Yes**, please indicate them
- Part 4: Attitudes:

**Instructions:** Please read each statement carefully and then check (√) the response that best shows your attitudes regarding enameling arts.

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<td>Disagree</td>
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<td>Agree</td>
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</table>

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<td>Enameling techniques are exciting</td>
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<td>Enameling art information is not a favorite subject for me</td>
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<td>27.</td>
<td>Enameling is too complicated for me to understand</td>
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<td>Enameling can change my artistic vision towards art</td>
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<td>29.</td>
<td>Enameling art can advance my educational profession</td>
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<td>Enameling can provide me with art experiences</td>
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<td>I enjoy seeing enameling art</td>
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<td>I am afraid of working with enameling techniques</td>
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<td>I like/ would like to learn more about enameling</td>
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<td>Enameling can help me explore techniques and new colors</td>
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<td>I prefer to take enameling class rather than other art classes</td>
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</table>

- Please feel free to provide any additional comments and suggestions:

.................................................................
.................................................................

Thank you for your cooperation,
APPENDIX E

INTERVIEW PROTOCOL

(IN-SERVICE ART TEACHER AT MINISTRY OF EDUCATION)
The purpose of this interview is to gather general information concerning knowledge, skills, experiences, perceptions, and attitudes towards enameling art.

- **Demographic Data**

1. Name:
2. Gender: (Male/Female)
3. Age:
5. Nationality:  
   - Kuwaiti □    
   - Non- Kuwaiti □
6. Education: (Diploma, Bachelor’s degree, Master’s degree, Doctorate degree)
7. Years of Teaching:

- **Interview Questions**
8. What do you think about the current art education curriculum at the College of Basic Education (CBE)? Does it cover all aspects of art education?

9. In your opinion, do you think that we need to change or add new courses to the art education curriculum? Is so, what needs to be added?

10. What do you know about the enameling arts and their history?

11. Do you have any prior skills and knowledge about the enameling arts? If yes, where did you receive your training (Home, School, Tutorial, College or University, Other - please specify?)

12. In your opinion, do you think that teaching enameling at the secondary school levels is important? If yes, why?

13. In your opinion, do you think that art teachers can teach enameling at the secondary school levels?

14. In your opinion, what are the benefits of studying the enameling arts?

15. In your opinion, what are the difficulties of teaching enameling art in art classes?

16. In your opinion, do you think that the enameling arts are important for the art education curriculum at the CBE? Why?

17. In your opinion, do you think that the pre-service art teachers are well-prepared in the enameling arts at the College of the Basic Education? Why?
18. In your opinion, do you think that there should be a course in enameling for the pre-service art teachers at the College of Basic Education? Why? If yes, what should the course include or cover?

19. As an art teacher, do you think that the Ministry of Education should support training and provide the needed courses in the enameling arts for in-service art teachers?

20. In your opinion, do you think that there should be some advanced workshops in the enameling arts? Why? What should these workshops include or cover?

21. In your opinion, do you think that there are relationships between the enameling arts and Islamic culture? If so, what are they?

22. As an art teacher, what are your skills and knowledge in traditional enameling techniques?

23. As an art teacher, what are your skills and knowledge in contemporary enameling techniques?

24. What kind of knowledge and skills do you believe teachers should have about the enameling arts?

25. As an art teacher, do you think that the use of enameling art will improve the student attitudes towards arts? How?

26. Are there any additional things that are important to enameling art and pre-service art teachers that we have not discussed?
APPENDIX F

INTERVIEW PROTOCOL

(ART EDUCATION FACULTY AT CBE)
The purpose of this interview is to gather general information concerning knowledge, skills, experiences, perceptions, and attitudes towards enameling art.

- **Demographic Data**

1. Name:
2. Gender: (Male/Female)
3. Age:
4. Education: (Diploma, Bachelor’s degree, Master’s degree, Doctorate degree)
5. Years of Teaching:
6. What art courses do you teach?

- **Interview Questions**

7. What do you think about the current art education curriculum at the College of Basic Education (CBE)? Does it cover all aspects of art education?

8. In your opinion, do you think that we need to change or add new courses in the art education curriculum?

9. Do you think it is important or not important to include enameling as a part of the art education curriculum? Why?

10. Do you have any prior skills and knowledge about enameling art? If yes, where did you receive your training (Home, School, Tutorial, College or University, Other - please specify)?

11. In your opinion, what are the benefits of studying enameling art?

12. In your opinion, what are the difficulties of teaching enameling art in the art classes?

13. Do you think that enameling should be taught for the pre-service art teachers in Kuwait? Why (please explain) If so, what aspects of enameling should be taught?

14. In your opinion, do you think that there should be a course in the enameling for the pre-service art teachers at the College of Basic Education? Why? If yes, why? What should the course include or cover?

15. What kind of art knowledge and art skills do you think that the pre-service art teachers should have regarding the traditional and contemporary enameling art?
16. As an art professor, do you think that the use of enameling art will improve the students’ attitudes towards art? How?

17. In your opinion, do you see enameling art as a part of art history course? How?

18. Are there any elements of the enameling art history that are included in the art history class in art education program at CBE? How (please explain)?

19. Do you think that there is any relationship between enameling art and the Islamic culture? How? Or, does enameling art relate to the Islamic art? How?

20. Do you believe that implementing an enameling art course into the core curriculum would elevate the pre-service art teachers’ productivity and effectiveness? How?

21. In your opinion, do you think that we should teach the pre-service art teachers about enameling art at the CBE? Why?

22. Are there any additional things that are important to the enameling art and pre-service art teachers that we have not discussed?
APPENDIX G

INTERVIEW PROTOCOL

(ART EDUCATION SUPERVISORS AT MOE)
The purpose of this interview is to gather general information concerning knowledge, skills, experiences, perceptions, and attitudes towards enameling art.

- **Demographic Data**
  1. Name:
  2. Gender: (Male/Female)
  3. Age:
  4. What is your highest degree level? (Diploma, Bachelor, Master, or Doctorate degree)
  5. Years of Teaching:
  6. What art classes do you teach?

- **Interview Questions**
  7. In your opinion, what do you think about the current art education core curriculum at the College of the Basic Education (CBE)? Does it cover all aspects of art education?
  8. In your opinion, do you think that we need to change or add new courses to the art education curriculum?
  9. In your opinion, do you think that the art education program at the College of the Basic Education prepares the pre-service art teachers in a professional way? How?
  10. Do you have any prior skills and knowledge about the enameling arts? If yes, where did you receive your training (Home, School, Tutorial, College or University, Other - please specify?)
  11. What do you know about the enameling arts and their history?
  12. In your opinion, do you think that enameling should be taught for the pre-service art teachers in Kuwait? Why (please explain)? What do you think they should know about the enameling arts?
  13. In your opinion, do you believe we should teach the Kuwaiti students about enameling art in art education classes? Why? What do you think they should know about the enameling arts?
  14. In your opinion, do you think teaching the Kuwaiti students about enameling art in art education classes is important? Why?
15. Does the Ministry of Education support training and provide courses for art-teachers training in enameling art? If yes, then how and when (please explain)?

16. In your opinion, do you think that teaching enameling techniques will enhance the student’s skills and knowledge in art? How?

17. As an art supervisor, do you think that the use of enameling art will improve the students’ attitudes towards art?

18. What kind of knowledge and skills do you think that the pre-service art teachers should have regarding traditional and contemporary enameling art?

19. What kind of knowledge do you think that the pre-service art teachers should have regarding the enameling arts?

20. Do you think that there is any relationship between enameling art and the Islamic art? How? Or, does enameling art relate to the Islamic culture? How?

21. In your opinion, what are the benefits of studying the enameling arts?

22. In your opinion, what are the difficulties when teaching enameling art?

23. What do you suggest should be done regarding enameling art in the College of Basic Education?

24. In your opinion, do you think that there should be a course in enameling for the pre-service art teachers at the College of Basic Education? Why?

25. Are there any additional things that are important to the enameling art and pre-service art teachers that we have not discussed?
APPENDIX H

INTERVIEW PROTOCOL

(ART EDUCATION FACULTY AT KUWAIT UNIVERSITY)
The purpose of this interview is to gather general information concerning knowledge, skills, experiences, perceptions, and attitudes towards enameling art.

- **Demographic Data**
  1. Name:
  2. Gender: (Male)
  3. Age:
  4. What is your highest degree level? (Master degree, or Doctorate degree)
  5. Years of Teaching:
  6. What art classes do you teach?

- **Interview Questions**
  7. In your opinion, what do you think about the current art education core curriculum at the College of the Basic Education? Does it cover all aspects of art education?
  8. In your opinion, do you think that we need to change or add new courses in the art education curriculum? If so, what should be changed or added?
  9. In your opinion, do you think that the art education program at the College of the Basic Education prepares the pre-service art teachers in a professional way? How?
  10. As a previous pre-service art teacher at the CBE, did you receive any training or have you had any experience with the enameling arts?
  11. What do you know about the enameling arts and their history?
  12. In your opinion, do you think that enameling should be taught for the pre-service art teachers in Kuwait? Why (please explain)?
  13. In your opinion, do you believe we should teach the Kuwaiti students about enameling art in art education classes? Why?
  14. In your opinion, do you think teaching the Kuwaiti students about the enameling arts in art education classes is important? Why?
  15. In your opinion, do you think that there should be a course in enameling for the pre-service art teachers at the College of Basic Education? Why? What should the course include or cover?
16. In your opinion, what do you suggest should be done regarding the enameling arts in the College of Basic Education?

17. As an art professor, do you think that the use of the enameling arts will improve the students’ attitudes towards art?

18. As an art professor, do you think that teaching enameling techniques will increase the student’s skills and knowledge in art? How? Which techniques should be taught?

19. Do you think that there is any relationship between enameling art and the Islamic culture? How? Or, does enameling art relate to the Islamic culture? How?

20. In your opinion, what are the difficulties when teaching enameling art in the art classes?

21. In your opinion, what are the benefits of studying enameling art?

22. Does the Art And Design/Curriculum and Instruction program offer enameling courses for the art students? Why?

23. In the future, are you willing to teach enameling art in the Department of Art And Design and/or in the Department of Curriculum and Instruction in the Kuwait University?

24. Are there any additional things that are important to the enameling art and pre-service art teachers that we have not discussed?
APPENDIX I

CONSENT FORM FOR THE PRE-SERVICE ART TEACHERS AT CBE
freely and voluntarily and without any element of force, agree to be a participant in the research project entitled “The Enameling Arts in Kuwaiti Pre-service Art Teacher Education”. I understand that the purpose of the research project is to examine the attitudes and perceptions of in-service and pre-service Kuwaiti art teachers about what is currently taught about enameling by Kuwaiti secondary school teachers and what they believe pre-service art teachers should know and be able to do in order to teach the enameling arts; this information will be used to guide the development of a content outline for an enameling curriculum for pre-service Kuwaiti art teachers that is educationally, culturally, and practically suitable.

I understand that my participation in this study is to fill out the questionnaire with information regarding knowledge, skills, perceptions, and attitudes regarding enameling art. I am aware that this questionnaire will take approximately fifteen minutes to complete.

I understand that my participation is totally voluntary and that I may stop participation and withdraw at anytime with no harm or penalty, and there are no foreseeable risks involved, if I agree to participate in this study.

I understand that this study is not expected to be of any direct benefit to me, but that there will be other benefits expected as a result of participating in this research project. I realize that this study will support improving the preparation of pre-service art teachers in the College of Basic Education (CBE) in the State of Kuwait. This study will also address applications for the professional development opportunities in the enameling arts for in-service teachers. Moreover, this research study will assist in the design of a content outline in enameling art for the art education program at the College of Basic Education in Kuwait.

I understand that I will not receive any payment or other compensation for my participation in this study.

I understand that this questionnaire and my responses will be kept by the researcher in a safe place. In addition, all my answers and written responses will be kept confidential and will be identified by a subject code number. Furthermore, my name will not appear on any part of the results and will not be presented in any publications or presentations regarding this study. I also know that only the researcher will have these data, and that they will be destroyed by December 20, 2009.

I have been given the right to ask and have answered any questions concerning the study. Questions, if any, have been answered to my satisfaction. I understand that I may contact the researcher; Ali Darweesh, at telephone number (940) 565- 3954 or via his email; ahd0014@unt.edu , or I may contact Dr. D. Jack Davis, an Art Education faculty advisor who supervises this research project, at telephone number (940) 565-3954 or via his email davis@unt.edu. Finally, the results of this project will be sent to me upon my request.

I understand that this research study has been reviewed and approved by the University of North Texas (UNT) Institutional Review Board (IRB). The UNT IRB can be contacted at (940) 565-3940 with any questions regarding the rights of research subjects.
Finally, I understand that I do not have to take part in this study, and my refusal to participate or my decision to withdraw will involve no penalty or loss of rights or benefits. The study personnel may choose to stop my participation at any time. I have read and understand this consent form, and I will receive a copy of this form for my records.

**Research Participants’ Rights:** Your signature below indicates that you have read or have had read to you all of the above and that you confirm all of the following:

- Ali H. Darweesh, a doctoral student at the University of North Texas (UNT) in the Department of Art Education and Art History, has explained the study to you and answered all of your questions. You have been told the possible benefits and the potential risks and/or discomforts of the study.
- You understand that you do not have to take part in this study, and your refusal to participate or your decision to withdraw will involve no penalty or loss of rights or benefits. The study personnel may choose to stop your participation at any time.
- You understand why the study is being conducted and how it will be performed.
- You understand your rights as a research participant and you voluntarily consent to participate in this study.
- You have been told you will receive a copy of this form.

________________________________
Printed Name of Participant

________________________________                                ____________
Signature of Participant                                     Date

________________________________
Signature of Witness

**For the Principal Investigator or Designee:**

I certify that I have reviewed the contents of this form with the participant signing above. I have explained the possible benefits and the potential risks and/or discomforts of the study. It is my opinion that the participant understood the explanation.

________________________________________               ___________
Signature of Principal Investigator or Designee   Date
APPENDIX J

CONSENT FROM FOR THE INTERVIEWEES AT CBE, MOE, AND KU
I __________________________ freely and voluntarily and without any element of force, agree to be a participant in the research project entitled “The Enameling Arts in Kuwaiti Pre-service Art Teacher Education”. I understand the purpose of research project is to examine the attitudes and perceptions of in-service and pre-service Kuwaiti art teachers about what is currently taught about enameling by Kuwaiti secondary school teachers and what they believe pre-service art teachers should know and be able to do in order to teach the enameling arts; this information will be used to guide the development of a content outline for pre-service Kuwaiti art teachers that is educationally, culturally, and practically suitable.

I understand that my participation in this study is to be interviewed with information regarding knowledge, skills, perceptions, and art attitudes in the enameling arts. I am aware that this interview will take approximately one hour to complete.

I understand that my participation is totally voluntary and that I may stop participation and withdraw at anytime with no harm or penalty, and that there are no foreseeable risks involved, if I agree to participate in this study.

I understand that this study is not expected to be of any direct benefit to me, but that there will be other benefits expected as a result of participating in this research project. I realize that this study will support improving the preparation of pre-service art teachers in the College of Basic Education (CBE) in the State of Kuwait. This study will also address applications professional development opportunities in enameling for in-service teachers. Moreover, this research study will assist in designing a content outline in the enameling arts for the art education program at the College of Basic Education in Kuwait.

I understand that I will not receive any payment or other compensation for my participation in this study.

I understand that this interview and my responses will be kept by the researcher in a safe place. In addition, all my answers and written responses will be kept confidential and will be identified by a subject code number. Furthermore, my name will not appear on any part of the results and will not be presented in any publications or presentations regarding this study. I know that only the researcher will have this data and they will be destroyed by December 20, 2009.

I have been given the right to ask and have answered any questions concerning the study. Questions, if any, have been answered to my satisfaction. I understand that I may contact the researcher; Ali Darweesh, at telephone number (940) 565-3954 or via his email; ahd0014@unt.edu, or I may contact Dr. D. Jack Davis, an Art Education faculty advisor who supervises this research project, at telephone number (940) 565-3954 or via his email davis@unt.edu. Finally, the results of this project will be sent to me upon my request.

I understand that this research study has been reviewed and approved by the University of North Texas (UNT) Institutional Review Board (IRB). The UNT IRB can be contacted at (940) 565-3940 with any questions regarding the rights of research subjects.

Finally, I understand that I do not have to take part in this study, and my refusal to participate or my decision to withdraw will involve no penalty or loss of rights or
benefits. The study personnel may choose to stop my participation at any time. I have read and understand this consent form, and I will receive a copy of this form for my records.

**Research Participants’ Rights:** Your signature below indicates that you have read or have had read to you all of the above and that you confirm all of the following:

- Ali H. Darweesh, a doctoral student at the University of North Texas (UNT) in the Department of Art Education and Art History, has explained the study to you and answered all of your questions. You have been told the possible benefits and the potential risks and/or discomforts of the study.
- You understand that you do not have to take part in this study, and your refusal to participate or your decision to withdraw will involve no penalty or loss of rights or benefits. The study personnel may choose to stop your participation at any time.
- You understand why the study is being conducted and how it will be performed.
- You understand your rights as a research participant and you voluntarily consent to participate in this study.
- You have been told you will receive a copy of this form.

________________________________
Printed Name of Participant

________________________________                                ____________
Signature of Participant                                     Date

________________________________
Signature of Witness

**For the Principal Investigator or Designee:**

I certify that I have reviewed the contents of this form with the participant signing above. I have explained the possible benefits and the potential risks and/or discomforts of the study. It is my opinion that the participant understood the explanation.

________________________________________               ___________
Signature of Principal Investigator or Designee  Date
APPENDIX K
PREMISSION LETTER TO THE COLLEGE OF BASIC EDUCATION
& THE APPROVAL LETTER FROM THE CBE
Dear Dean of the College of Basic Education,

I am a doctoral student majoring in Art Education at the University of North Texas, and I am eager to collect information regarding knowledge, skills, experiences, perceptions, and attitudes towards the enameling arts from College of Basic Education for my dissertation research.

The result of this investigation will support the improvement of the preparation of pre-service art teachers in the College of Basic Education. It will also address applications for professional development opportunities in enameling for in-service teachers in the public schools. Moreover, it will assist in designing a content outline in the enameling arts for the art education program. The outcomes of the study will help to advance the educational system in Kuwait. Thus, this research will represent a new and beneficial study for the pre-service art teachers at the CBE in Kuwait.

Therefore, please accept this letter as a request for permission to distribute my questionnaire and to conduct interviews in the art classes at the Department of Art Education in this College. Please also note that the contributions of the pre-service art teachers and the art education faculty members will help in determining the need for developing an enameling course in Kuwait and will assist in providing a base of information for the initiation of future enameling programs in the country.

Thank you for your measured consideration and assistance.

Respectfully,

Ali H. Darweesh

University of North Texas
College of Visual Arts and Design
P.O. Box 305100
Denton, TX 76203
Telephone (940) 565-395
ahd0014@unt.edu
المرجع:
الاريخ: ٣/٣/٢٠١٧
المواقف: الأوراق

كلية التربية الأساسية

إلى من يهمه الأمر:

يشهد أن السيد/ علي دويش (معيد بعثة بقسم التربية الفنية) جامعة شمالي تكساس قد قام بتطبيق الجزء الميداني من أطر و{o}احل للحصول على درجة الدكتوراه خلال الفصل الدراسي الثاني للعام الدراسي ٢٠٠٨/٢٠٠٩ م.

وقد أعطت له هذه الشهادة بناءً على طلبه، وذلك تحمل الكلية أي مسئولية قانونية لدى الآخرين.

عميد الكلية (بالتمكين)
د. بهجة إسماعيل البهبهاني

د. بهجة إسماعيل البهبهاني
عميد الكلية بالتمكين

٣٤/٣/٢٠١٧
السماحة (١٣٠٩) الكويت بقية ٢٠٠٨٩١٦٩٠٨٧٦٢
APPENDIX L

PERMISSION LETTER TO THE MINISTRY OF EDUCATION
Dear Sir/Madam,

I am a doctoral student majoring in Art Education at the University of North Texas, and I am eager to collect information regarding knowledge, skills, experiences, perceptions, and attitudes towards the enameling arts from the Ministry of Education for my dissertation research.

The result of this investigation will support the improvement of the preparation of pre-service art teachers in the College of Basic Education. This study will also address applications for professional development opportunities in enameling for in-service teachers in the public schools. Moreover, it will assist in designing a content outline in the enameling arts for the art education program. The outcomes of the study will help to advance the educational system in Kuwait. Thus, this research will represent a new and beneficial study for the pre-service art teachers at the CBE in Kuwait.

Therefore, please accept this letter as a request for permission to conduct interviews in the art classes’ at the schools and with the Supervisors of Art Education in the Ministry of Education. Please also note that the contributions of the in-service art teachers and art supervisors will help in determining the need for developing an enameling course in Kuwait and will assist in providing a base of information for the initiation of future enameling programs in the country.

Thank you for your measured consideration and assistance.

Respectfully,

Ali H. Darweesh

University of North Texas
College of Visual Arts and Design
P.O. Box 305100
Denton, TX 76203
Telephone (940) 565-395
ahd0014@unt.edu
APPENDIX M

PERMISSION LETTER TO KUWAIT UNIVERSITY

&

APPROVAL LETTER FROM KUWAIT UNIVERSITY
Dear Sir/ Madam,

I am a doctoral student majoring in Art Education at the University of North Texas, and I am eager to collect information regarding knowledge, skills, experiences, perceptions, and attitudes towards the enameling arts from Kuwait University for my dissertation research.

The result of this investigation will support the improvement of the preparation of pre-service art teachers in the College of Basic Education. This study will also address applications for professional development opportunities in enameling for in-service teachers in the public schools. Moreover, it will assist in designing a content outline in the enameling arts for the art education program. The outcomes of the study will help to advance the educational system in Kuwait. Thus, this research will represent a new and beneficial study for the pre-service art teachers at the CBE in Kuwait.

Therefore, please accept this letter as a request for permission to conduct interviews in the Department Art and Design and in the Department of Curriculum and Instruction. Please also note that the art education faculty members’ contribution to this study will help in determining the need for developing an enameling course in Kuwait and will assist in providing a base of information for the initiation of future enameling programs in the country.

Thank you for your measured consideration and assistance.

Respectfully,

Ali H. Darweesh
University of North Texas
College of Visual Arts and Design
P.O. Box 305100
Denton, TX 76203
Telephone (940) 565-395
ahd0014@unt.edu
Date: March 25, 2009
To: Ali Darweesh
From: Khaled Al Najdi, Head, Department of Art & Design

Dear Ali Darweesh,

Thank you for your interest in conducting interviews in the Department of Art & Design at Kuwait University. Let me take this opportunity to promote the highly professional qualifications and standards of the faculty whom you will conduct your interviews with. This letter serves as an approval for data collection during Spring Semester 2009.

Good luck in your research study.

Sincerely,

[Signature]

[Footer]
Department of Art & Design, College for Women
P.O. Box 5969 Safat 13060 Kuwait
Tel 965 2498 3103  Fax 965 2498 3163  http://ku.edu.kw

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APPENDIX N

ARABIC VERSION OF THE SURVEY QUESTIONNAIRE
جامِعَة شَمَالِ تَكَسَس – الولَائِات الامِرَكِيَّة

فنَون المينا في بِرَنِامجِ إِعداد مُدِرسِسِين و مَدَرسَات التَّربِيَّة الفَنِّيَّة دِولة الكويت

السَّادَة / مَدِرسِي التَّربِيَّة الفَنِّيَّة مستقبلاً

إِنَّه لِلَّذينَ دَوَاعَيْ سِرورٍ أَن يَكونَ مَشارِكَةَهم المَهمَّة جِزءًا مِن الدِّرَاسَة التي أُعدَّها حَالياً في جَامَعَة شَمَالِ تَكَسَس – الولَائِات الامِرَكِيَّة - والتي تَهذِف إِلَى مَعِرّفَة مِنْ مَعْلَمَاتِ المَهَارَات الفَنِّيَّة الَّتي يَمْتَلَّكَها طْلَبَات و طَلَابَات كَلِية التَّربِيَّة الأَساسيَّة في تَخصِصَ التَّربِيَّة الفَنِّي بِخصُوصِ فَنَّون المينا، و ذلك مَعِرَفَة مِنْ إِدرَاكاتِ الفَنِّي و اِتْجاهَاته مِنْ هَذِه الْفَنَّون، مَتَطَلِّعًا كَبَاحِثٍ إِلَى تَطُوير مَستوى و مَهارات طَلَبَات و طَلَابَات الكَلِية في فَنَّون المينا، مَع سِمَاعٍ سِوِف يَسَاعُ إِلَى تَطوير مَستوَآه و في تَدْرِسَ تلك الْفَنَّون فِي المِستَقبِل.

كَأَمَّا أَوَّد التِّنويَة أَنَّي أُقَامَ بِاستِغْلَالِ الاستِبِينَانِ كَادا لِلدَّارِسِينَ فِي هَذِه الْدِّرَاسَة، ذَلِك لِجِمع ما يَمْتَلَّكُهُ طَلَبَات و طَلَابَات كَلِية التَّربِيَّة الأَساسيَّة – تَخصِصَ التَّربِيَّة الفَنِّي – مِن مَعْلَمَاتِ مَهَارَات بِخاصَّة فَنَّون المينا، و ذلك مَعِرَفَة مِنْ إِدرَاكاتِ الفَنِّي و اِتْجاهَاته مِنْ هَذِه الْفَنَّون. يَكُونَ هَذَا الاستِبِينانِ مِنْ أَرْبَعَ صُفَّاءً بِفِيَا صَفَّاهُمَا مَعَدَّة. و الْجَنِيرَ يَذْكُر أَن هَذَا الاستِبِينانِ يَسْتَدْعَى مَا يُقَارِبْ 1٥ دِينَائِر لِلْبَاحِث و يمْكِنَنَا خَلَالّهُمْ تَعِينَة عن أي سَوَاء خَلَالّ تَعِينَة الاستِبِينانِ.

كَأَمَّا يَرْجِي الإِحَاصَةُ بِنَا مِنْ مَساَهِمَتِكَ بِهِذِه الْدِّرَاسَة سُوف تَساعِد إِلَى تَطْوِير مَقرْرِر فَنَّون المينا فِي دِولة الكويت.

الرُجَاءُ تَعِينَة الاستِبِينَانِ المرفَقَة و إِرجاعَهَا إِلَى الْبَاحِث، عَلَمَا يَأْنِك إن كل الَّيْبَانَات المعطَى سِتَّوْنَ سَرِيَّة بِحَيث لِنَطِع عليها سوَى الْبَاحِث، و سُوف تَسَعِد إِلَى تَعِيمَة أَهْدَاف هَذِه الْدِّرَاسَة.

وَلَكِمْ جَزِيل الشَّكْرِ،

------------------------------------------

أَقَرَّ أَنْي قَرَأَتْ كَلَا مِساَبِق و أَوَافَقَ عَلَى المَشارِكَة فِي هَذَا الْبَاحِث و أَعُر فَإِن بِاستِطاعَتِي الْانسَحَاب بَعْدٍ و جَاهِزَة مِنْ هَذِه الْدِّرَاسَة، و هَذَا لِنَبُتَرُ بِنَائَا فِي البِتِّيْدِ الْنَهَائِي لِهَذِه المَادَة و سُوف أَقَّر بِتَبَلِيغَ الْبَاحِث عَلَى دُوَرِيَّ شَخْصِيَّاً أو بِعَتَار الْإِمِيلِ التَّالِي

ahd0014@unt.edu

أَو عَن طَرَيْق اِرسَالِ اِمِيل إِلَى مرْشَد الْبَاحِث: د. جَاك دَيفِيز

davis@unt.edu

أَقَرَّ أَنْي أَسْتَلِمَتْ نَسْخَةً مِن طَلْبِ المَشارِكَة فِي الْدِّرَاسَة.

توقيع المشارك __________________________ التاريخ __________________________

أَقَرَّ أَنْي شَرُوط طَلْبِ المَشارِكَة قد طَبَقَتْ و أَقَّر بِتَبَلِيغَ جَمْعِ أَسْلَة المَشارِكِينَ.

توقيع الْبَاحِث __________________________ التاريخ __________________________
أيها الطالب، أختي الطالبة
بجزيل الشكر والتقدير...
من فضلك، ااختار أو أكتب الإجابة المناسبة للبيانات التالية:

البيانات الشخصية:
1- الاسم (اختياري) : ...........................................
2- الجنس:
   □ ذكر □ أنثى
3- السنة الدراسية في الكلية:
   □ السنة الأولى □ السنة الثانية □ السنة الثالثة □ السنة الرابعة □ السنة الخامسة
4- العمر:
   □ 18-22 □ 23-28 □ 29-32 □ 33-فما فوق

الخبرات السابقة والإدراك الفني:

التعليمات: الرجاء قراءة كل عبارة بعناية مع وضع علامة (✓) في الخانة المناسبة:

<table>
<thead>
<tr>
<th>العبارة</th>
<th>رقم</th>
</tr>
</thead>
<tbody>
<tr>
<td>هل تعتقد أن مقررات المعادن في كلية التربية الأساسية تحتوي على معلومات كافية لتأهيل الطلبة في هذا المجال؟</td>
<td>5</td>
</tr>
<tr>
<td>هل سمعت عن فنون المناهاج؟</td>
<td>6</td>
</tr>
<tr>
<td>هل سبق لك استخدام فنون المناهاج في المنزل؟</td>
<td>7</td>
</tr>
<tr>
<td>هل سبق لك استخدام فنون المناهاج في حرص التربية الفنية في المدرسة؟</td>
<td>8</td>
</tr>
<tr>
<td>هل سبق لك استخدام فنون المناهاج في أحد المقررات التي درستها في كلية التربية الأساسية؟</td>
<td>9</td>
</tr>
<tr>
<td>هل سبق لك حضور ورش تدريبية في مجال فنون المناهاج؟ إذا كان الجواب بنعم، يرجى تحديد أين كانت هذه الورش:</td>
<td>10</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>العبارة</th>
<th>رقم</th>
</tr>
</thead>
<tbody>
<tr>
<td>كم عدد مقررات المعادن التي اجتنبتها حتى الآن في كلية التربية الأساسية؟</td>
<td>11</td>
</tr>
</tbody>
</table>
التعليقات: الرجاء قراءة كل عبارة بعناية مع وضع علامة (✓) في الخانة المناسبة، أو كتابة ما تراه مناسباً في المكان المحدد إذا استلزم الأمر

<table>
<thead>
<tr>
<th>الرقم</th>
<th>العبارة</th>
</tr>
</thead>
<tbody>
<tr>
<td>12</td>
<td>معلوماتي عن فنون أشغال المعادن بصورة عامة</td>
</tr>
<tr>
<td>13</td>
<td>قدراتي المهنية في فنون أشغال المعادن بصورة عامة</td>
</tr>
<tr>
<td>14</td>
<td>كمية المعلومات في مقرر المعادن في كلية التربية الأساسية عن فنون المينا</td>
</tr>
<tr>
<td>15</td>
<td>معلوماتي عن فنون المينا بصورة عامة</td>
</tr>
<tr>
<td>16</td>
<td>قدراتي المهنية في فنون المينا بصورة عامة</td>
</tr>
<tr>
<td>17</td>
<td>معلوماتي عن تقنيات فن المينا التقليدية القديمة</td>
</tr>
<tr>
<td>18</td>
<td>معلوماتي عن تقنيات فن المينا المعاصرة الحديثة</td>
</tr>
<tr>
<td>19</td>
<td>معلوماتي عن تاريخ فنون المينا</td>
</tr>
</tbody>
</table>

20- هل تعرف أي نوع من فنون المينا التقليدية القديمة؟
   إذا كان الجواب يتبناي، يرجى ذكرها:

21- هل تعرف أي نوع من فنون المينا المعاصرة الحديثة؟
   إذا كان الجواب يتبناي، يرجى ذكرها:

22- هل لديك معلومات عن وجود علاقة بين فنون المينا والفن الإسلامي؟
   إذا كان الجواب يتبناي، يرجى ذكرها:

23- هل تعلمت بعض المهارات في فنون المينا التقليدية القديمة؟
   إذا كان الجواب يتبناي، يرجى ذكرها:

24- هل تعلمت بعض المهارات في فنون المينا المعاصرة الحديثة؟
   إذا كان الجواب يتبناي، يرجى ذكرها:

<table>
<thead>
<tr>
<th>لا</th>
<th>مقبول</th>
<th>جيد جداً</th>
<th>لا أعلم</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
التعليمات: الرجاء قراءة كل عبارة بعناية مع وضع علامة (√) في الخانة الدالة عليها لتبين انطباعك أو اتجاهك نحو استخدام فنون وألوان المنا بمعان.

<table>
<thead>
<tr>
<th>العبارة</th>
<th>الرقم</th>
</tr>
</thead>
<tbody>
<tr>
<td>تكننيب العمل بفنون المينا ممتعة</td>
<td>25</td>
</tr>
<tr>
<td>فن المينا ليس من الفنون المفضلة لدي</td>
<td>26</td>
</tr>
<tr>
<td>بالنسبة لي فنون المينا معقدة ويصعب فهمها</td>
<td>27</td>
</tr>
<tr>
<td>استخدام فنون المينا سوف يغير رؤيتي الإبداعية الفنية</td>
<td>28</td>
</tr>
<tr>
<td>فن المينا سوف يحسن من أدائي في مجال التربوية الفنية</td>
<td>29</td>
</tr>
<tr>
<td>فن المينة يطور من خبراتي الفنية</td>
<td>30</td>
</tr>
<tr>
<td>استمتع برؤية فن المينا</td>
<td>31</td>
</tr>
<tr>
<td>أشعر بالخوف من استخدام تكننيات فنون المينا</td>
<td>32</td>
</tr>
<tr>
<td>أحب تعلم المزيد عن فنون المينا</td>
<td>33</td>
</tr>
<tr>
<td>أشعر براحة عند استخدام فن المينا</td>
<td>34</td>
</tr>
<tr>
<td>استخدام فن المينا يساعدني على اكتشاف تقنيات وألوان جديدة</td>
<td>35</td>
</tr>
<tr>
<td>أفضل دراسة مقررات فنون المينا على دراسة مقررات الفن الأخرى</td>
<td>36</td>
</tr>
</tbody>
</table>

الرجاء ذكر أي معلومات أو اقتراحات إضافية من شأنها أن تثير نتائج هذا الاستبيان

........................................................................................................................................
........................................................................................................................................
شكرا لكم على حسن تعاونكم

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APPENDIX O

ARABIC VERSION OF THE INTERVIEW PROTOCOL FOR
THE IN-SERVICE ART TEACHERS
مقابلة شخصية مع مدرسي 1 مدارس التربية الفنية

الهدف من هذه المقابلة أن نجمع معلومات عامة بشأن الثقافة الفنية، المهارات والقدرات الفنية، الإدراك الفني، الرأي والاتجاه الفني بشأن ألوان المينا الزجاجية (فنون المينا).

معلومات عامة:

1- الاسم (اختياري): 
2 - الجنس: 
3- العمر (اختياري) 
4- الجنسية: 
5- التعليم: 

6- سنوات الخبرة في التدريس: 

7- المرحلة الدراسية التي تقوم بتدريسها: 

8- ما رأيك بشأن المناهج الحالية للتربية الفنية في كلية التربية الأساسية؟ وهل يغطي جميع أوجه التربية الفنية؟

9- هل تعتقد أننا نحتاج إضافة و حذف مواد منهج التربية الفنية في كلية التربية الأساسية؟

10- هل لديك أي خبرات أو معلومات أو ثقافة فنية بشأن ألوان المينا (فنون المينا)؟

11- هل لديك معلومات بشأن فنون ألوان المينا وتاريخها الفني؟
12 - لماذا برأيك هل تعتقد أن تدريس فنون المينا (الوان المينا) في المرحلة المتوسطة والثانوية مهمة؟ إذا كانت الإجابة نعم اذكر لماذا؟

13 - هل تعتقد أن مدرسي التربية الفنية مؤهلين لتدريس فنون المينا (الوان المينا) في المرحلة المتوسطة والثانوية؟ إذا كانت الإجابة نعم اذكر لماذا؟

14 - برأيك ما هي الفوائد التي يكتسبها الطالب من خلال دراسة فنون المينا؟ بنعم الإجابة كانت إذا؟

15 - برأيك ما هي الصعوبات التي يواجهها الطالب من خلال دراسة فنون المينا؟ بنعم الإجابة كانت إذا؟

16 - هل تعتقد أن فنون المينا مهمة في منهج التربية الفنية و لماذا?

17 - هل تعتقد أن طلبية كلية التربية الأساسية مدعية إعداداً جيداً في فنون المينا؟

18 - كمدرس تربية فنية هل تعتقد أن على وزارة التربية (توجهية التربية الفنية) توفير ورش لإعداد مدرسي التربية الفنية في فنون المينا؟

19 - هل تعتقد بضرورة وجود دورات متقدمة في فنون المينا؟ إذا كانت الإجابة نعم الرجاء ذكر محتوى الدورات

20 - برأيك هل هناك علاقة بين فنون المينا والحضارة الإسلامية؟ الرجاء ذكر أمثلة
21 - كمدرسة تربية فنية ما هي المهارات و القدرات الفنية و الثقافة الفنية التي لديك في فنون المينا التقليدية؟

22 - كمدرسة تربية فنية ماهي المهارات و القدرات الفنية و الثقافة الفنية التي لديك في فنون المينا الحديثة؟

23 - برأيك ماهي الثقافة و القدرات الفنية التي يحتاجها المدرس لتدريس فنون المينا؟

24 - هل هناك أشياء إضافية تود ذكرها بشأن اعداد طلبة كلية التربية الأساسية و كذلك عن فنون المينا؟
APPENDIX P

AESTHETIC & CRITIQUE MODELS TO EVALUATE ENAMELING ARTS
The selected models are adapted from Cromer (1990) and Barrett (1997) as follows:

1- Edmund Burke Feldman Model: it is concerned with the formal relationships and compositions of physical elements of art works (observation, description, analysis, interpretation, and judgment).

- Describe: what do you see in the art work.
- Analyze: discuss the visual elements and the principles. (Elements: line, shape, color, value, texture, space, and form) and (Principles: unity, balance, rhythm, emphasis, repetition, movement, and variety).
- Interpret: what is the artist trying to express? What is the artist’s message? And what does this artwork mean?
- Judge: choose criteria for judging the artwork in group or individual critique.

2- Anderson Model: it is a judgment and evaluation which is based on three major questions about the art work.
   - What is it? (Description).
   - What does it mean? (Interpretation).
   - What is its significance? (Judgment).

3- Broudy Aesthetic Scanning Model: Look at art from only at elements and designs. (Aesthetic factors, analysis, evaluation, sequence, and outcome).

4- Terry Barrett Model Viewer Interpretation: it is based on three major questions.
   - What do we see?
   - What is it mean?
   - What do you know?
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