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UNIVERSITY OF OKLAHOMA
GRADUATE COLLEGE

THE APPLICATION OF MUSIC HISTORY AND MUSIC THEORY IN KEYBOARD STUDY TO FACILITATE THE DEVELOPMENT OF BEGINNING STAGES OF CRITICAL THINKING

A DISSERTATION
SUBMITTED TO THE GRADUATE FACULTY
in partial fulfillment of the requirements
for the degree
DOCTOR OF PHILOSOPHY

by
HELEN HUNTLEY BROWN
Norman, Oklahoma
1997

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THE APPLICATION OF MUSIC HISTORY AND MUSIC THEORY IN KEYBOARD STUDY TO FACILITATE THE DEVELOPMENT OF BEGINNING STAGES OF CRITICAL THINKING

A Dissertation APPROVED FOR THE SCHOOL OF MUSIC

BY

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THE APPLICATION OF MUSIC HISTORY AND MUSIC THEORY IN KEYBOARD STUDY TO FACILITATE THE DEVELOPMENT OF BEGINNING STAGES OF CRITICAL THINKING

BY: HELEN HUNTLEY BROWN

MAJOR PROFESSOR: E. L. LANCASTER, Ph.D.

The purpose of this study was to determine the effectiveness of specific activities in music history and music theory on raising selected college freshmen students' skills at thinking critically about:

a. The relationship of the knowledge of music history and music theory to developing the critical thinking skills necessary for effective keyboard performance.
b. Personal growth and confidence as a performer.

A workbook designed by the researcher was used with three selected students in a case study approach during the first nine weeks of the Fall, 1996 semester at William Jewell College. The workbook activities were designed to follow the six stages of Bloom's (1956) taxonomy. The workbook included activities to be completed at each weekly session and assignments to be completed during the week such

as comparing keyboard music of the four periods, critiquing performances, editing untitled scores, preparing repertoire without outside help, and evaluating individual progress through the use of a practice journal. The activities were the same for all three students, although the repertoire was designed to fit early-intermediate, late-intermediate and advanced performance levels.

Each weekly session was video-taped. Written observations by the researcher were organized under these headings: amount of dialogue between the researcher and student, the student's interest in the workbook activities, indications of the student's individual thinking, effectiveness of the practice journal, evidence of the student's trust in the researcher, evidence of transfer of the student's acquired knowledge to subsequent musical problems and the assessment of the number of activities and time allowed for their completion.

Recommendations for further study included a comparative study encompassing a longer period of time, a similar study for average-age beginning piano students in independent studios, a study comparing two groups of high school senior keyboard students to determine if the group using the workbook activities were better prepared for college music study, and a similar study to test the effect

of including music history and theory in the study of voice and other instruments at the college level.

THE APPLICATION OF MUSIC HISTORY AND MUSIC THEORY IN KEYBOARD STUDY TO FACILITATE THE DEVELOPMENT OF BEGINNING STAGES OF CRITICAL THINKING

CHAPTER ONE

INTRODUCTION

While concentrated studies of critical thinking began in the 1970s, the last ten years have seen a greater emphasis placed on employing critical thinking activities in educational classrooms. Many educators and other members of the intellectual community believe that when students learn factual information, they are not challenged to think critically, to draw on their acquired knowledge to solve problems or make value judgments. Many feel a solution to improving American education lies in including critical thinking techniques in the educational process, as evidenced by the flood of books and articles on the subject of critical thinking as well as a growing number of conferences, workshops, and symposia addressing the subject.

Questions entering into the discussion of critical thinking include: What is critical thinking? What knowledge is vital to critical thinking? Can the teacher facilitate critical thinking? How can critical thinking be developed in a specific subject area? In the case of music study an additional question arises. How can critical thinking be incorporated in an area that develops performance skill? As King (1991) notes in her discussion of the private keyboard studio, in most learning situations the teacher, as the "Sage on the Stage", transmits knowledge to students who reproduce without thinking. Such teaching, referred to as the "transmittal model," develops passive learning and assumes that the student's brain is like an empty container into which the teacher pours knowledge. By contrast, King notes that the "Guide on the Side," would be the teacher who provides the student an opportunity to form opinions leading to active learning. When active learning takes place, the result will be deeper understanding and a willingness to experiment and be creative. The teacher who asks questions of the student, who lets the student think independently, who encourages the student to make evaluations, to use analysis, to experiment, and to make decisions would be said to encourage and emphasize higher orders of thinking.

According to Sitton (1992):

> The teacher's job is to guide the student, primarily through increasingly specific questions, to a reasonable tactic for the resolution of the difficulty. Educational psychology confirms

> that when the student is led to reveal answers to himself, instead of being told in direct fashion how to proceed, the student is much more likely to move toward independence in learning. (p. 31)

It is the author's opinion, based on many years of college keyboard teaching, that the majority of entering college keyboard students have spent years of study without being called on to make judgments, to pose questions, to use comparisons, or to monitor their own musical behavior. These students generally have followed a prescribed course of study progressing to more advanced repertoire. Apart from the notes having been learned and technique having been achieved through scales and exercises, these students have made little effort to know and to understand the music. According to Pognowski (1989):

> Students who are taught a traditional, purely theoretical approach to musical problem solving miss out on opportunities to develop critical thinking skills. When our initial concerns focus only on theoretical factors of music, there is no musically expressive experience to which students can relate. (p. 40)

In defining critical thinking Dewey (1933) wrote that knowledge only is attained when material is comprehended. He suggested that this understanding, or comprehension, means that the "various parts of the information acquired are grasped in their relationships to one another, a result that is attained only when acquisition is accompanied

by constant reflection upon the meaning of what is studied" (p. 78). It is this relationship of various parts to one another that leads the researcher to contend that the application of music history and music theory in keyboard study may be a means of facilitating the development of the beginning stages of critical thinking in keyboard study. Students can better understand the music they are learning if they know the relationships of music history and music theory to the repertoire studied and can apply this understanding as they perform.

In her book, *Dimensions of Musical Thinking,* Boardman (1989) suggests the "goal of music educators is to help students become independent musicians to the extent of their interest and ability." (p. 4). It is the music teacher's responsibility to help students develop thinking processes that will enable them to reach the highest levels of critical thinking as defined by Bloom's (1956) taxonomy: analysis, synthesis, and evaluation.

Boardman contends:

> As music teachers, it is crucial that we not lose sight of our ultimate mission to help our students grasp the deeper meaning of musical structure and thus gain the ability to use music as a metaphor of reality. Drilling rhythm patterns, recalling tonal syllables, practicing the correct fingering *ad infinitum* may be necessary activities at some point, but only if the learner sees how the focus on the part leads to a more complete sensitivity to

the whole. This cannot occur unless the teacher regularly helps the student make that connection. (p. 5)

Boras (1929) underscores this claim:

When a teacher assigns a lesson without showing the pupil the values of that lesson, without giving him sufficient directions how to proceed to master it, and without stimulating him to contribute something of his own thoughts, learning will be nothing but plain drudgery and the spirited student must be expected to try to escape it if he can. (p. 91)

Teaching students to form opinions and to make decisions about music should be every music teacher's goal. Rheam (1986) states, "True musicianship involves a melding of technical skills and decision making in how to image the music so the listener is not focused on the notes and the performance mediums, but drawn to the expressive thoughts that the music conveys" (p. 30).

In her book, *Music Teaching*, Small (1987) suggests four ways of applying critical thinking to musical situations:

1. Defining the musical problem. What exactly and eventually do we want to know?
2. Identifying the "point." Knowing what is (and what is not) related to a given subject is necessary for rational decision making.

3. Recognizing underlying assumptions-understanding the importance of identifying those points that are taken for granted.
4. Detecting inconsistencies. "Practice makes perfect" can only be true if the practice is perfect. Continuous practicing of wrong technique will make a performer very good at playing badly. (p. 47)

Students need to be involved in decisions concerning the performance of the music being studied. It is not enough simply to tell students to follow the musical markings on the page. One would not suggest that a dramatic role could be interpreted in only one way with only one inflection, only one type of mannerism. Nor would one expect a group of artists would all paint a still-life display in exactly the same way. Students should be given the opportunity for experimentation. A suggestion for promoting an exercise in critical thinking is to give students a work of music void of any expression marking and to ask them to write expression markings according to what they think the music dictates. A by-product of such an exercise is the realization that varying opinions exist concerning the interpretation of a particular musical work. As a result, students would be led to develop independent musicianship. Although constants are in a musical work such as the notes and meter, variables occur due to each individual's understanding of the work. In his book,

The Role of the Reader, Eco (1979) refers to this idea in the arts as an "open" form. He states:

> A work of art, therefore, is a complete and closed form in its uniqueness as a balanced whole, while at the same time constituting an open product on account of its susceptibility to countless different interpretations which do not impinge on its unadulterable specificity. Hence every reception of a work of art is both an interpretation and a performance of it, because in every reception the work takes on a fresh perspective for itself. (p. 49)

Elliott (1991) concurs, "A person who deploys his or her musicianship in performing a score follows rules and principles developed by previous practitioners, but he or she is also free to adapt these principles" (p. 33).

This is not to say that complete license should be allowed in the performance of a musical composition. One would not approve the performance of a Baroque period composition played in the style of the Romantic period. There must be a base of knowledge to which students can refer in the learning process. Students should build from known concepts to more abstract understanding in the study of music. Elliott suggests:

> When student musicianship is carefully challenged with musical opportunities for personal interpretation, students are

likely to achieve the enjoyment that comes with doing something that is worth doing for its own sake. (p. 37)

Woodford (1996) writes:

While teachers must provide students with an array of appropriate musical models representing the diversity of existing musical belief systems, their ultimate goal should be to encourage students to think for themselves and to make their own informed judgments as to the quality or desirability of what is performed. (p. 31)

Chafee (1993) maintains students should "systematically" add to the information and concepts with which they are familiar. "We need to anchor concepts in the students' experiences and then build bridges to help them move to the understanding we want them to achieve" (p. 8).

It is essential that teachers seek ways to arouse interest and motivate keyboard students. Involving students in critical thinking learning exercises may be a principal way to motivate and maintain interest. Also, in the process of working through these exercises, students may have the opportunity to develop and utilize cognitive skills needed by the effective performer.

Purpose of the Study

The purpose of this study was to determine the effectiveness of specific activities in music history and music theory on raising selected college freshmen students' skills at thinking critically about:

a. The relationship of the knowledge of music history and music theory to developing the critical thinking skills necessary for effective keyboard performance.
b. Personal growth and confidence as a performer.

Need for the Study

Most educators who began their teaching careers before 1975 never encountered the term "critical thinking" during their undergraduate or graduate preparation. While the amount of research and literature is vast in other content areas, relatively few studies and publications apply critical thinking concepts to music study, and most of these have been since the mid-1980s. Research and writing pertaining specifically to critical thinking in the area of applied keyboard study is virtually non-existent.

The keyboard student does not always have the opportunity to engage in higher order thinking. Too often within the keyboard studio the thirty minute or one hour lesson consists of repetitive drills, the hearing of poorly prepared pieces with admonitions for more practice and much waste of time in small talk. Frequently the focus is

exclusively on development of technique and the memorization of repertoire. The acquisition of extensive repertoire for performance is often accomplished at the sacrifice of a thorough understanding of the music being performed. A common mistake made by teachers is to think and do for the student rather than to let the student develop the initiative to think, to ask for information, and to evaluate the answers or situations. Skill development is a necessary and desired aspect of music study, but adequate time must be devoted to the development of thinking skills that will enable the student to make decisions regarding interpretation, to understand performance practices of different periods, to seek to understand the structure of the composition, and to assess personal progress. As Boras (1929) states:

> He who is unable to think independently, and who lacks initiative and creativeness cannot overcome the forces and conditions which tend to enslave him and can never achieve anything more than mediocrity. (p. 89)

Educational processes seem to focus on students answering questions rather than asking them. The student replaces thinking with simply accepting the thoughts of others. The teacher should help students realize the main purpose in asking questions is to gain knowledge. Ruggiero, (1988) states, "Curiosity, useful in every stage of thinking, is indispensable in the first stage, searching for challenges" (p. 81).

The idea of curiosity and critical thinking go hand in hand. The keyboard musician (or any musician) is like a student in the science lab who hypothesizes and experiments over and over in his search for the most meaningful and perfect solution. To instill this questioning process in students, the teacher must display curiosity to the students. Boras writes that if he could start as a boy again he would like to have among his teachers "one who was delightfully ignorant of everything and intensely curious to learn" (p. 105).

It is important that the teacher is careful not to stifle the questioning process. The lack of active questioning can result in an attitude of passivity and disengagement, especially in the older student. Meyers (1986) quotes Carl Sagen:

> I think everybody is born with wonder, and that society beats it out of you—Youngsters who are slowly examining the world around them and wondering about it ask perfectly good questions like "Why is the grass green?" because they can envision it purple or orange. The adult who is answering the question is annoyed and says, "Don't ask dumb questions. What color do you expect it to be?" (p. 42)

Studio teachers often neglect to provide assignments that focus explicitly on critical thinking, focus on coverage rather than depth, fail to ask questions, answer their own questions after asking them, and ask questions that call for single answers. According to Boras, "A considerable number of teachers suffer from being a slave to details.

They are so concerned about having everything done just so that it never occurs to them to let the pupils do things" (p. 92). The adherence to prescribed routine may cause a loss of initiative and creativeness. It is not surprising that many students discontinue keyboard study, and that teachers lose interest in their profession.

If students are expected to think critically in the content area of keyboard study, the teacher must provide opportunities for higher order thinking to occur. Pognowski (1987) suggests, "Learning is enhanced when we vary our instructional modes to engage our students in active reflection as opposed to passive spectatorship" (p. 39). Johnson suggests in evaluating each lesson, a teacher should:

> ponder whether the student felt successful during and at the end of the session, left the lesson wanting to return the next week, understood everything that was presented, and knew how to practice the assignment at home. (p. 23)

The researcher found no guidelines to help a teacher include critical thinking in a student's keyboard study. Research is needed to find methods of including critical thinking in keyboard study. Including critical thinking activities in keyboard study may help produce students and future keyboard teachers who are not only performers but also thinkers, a duality that should develop consummate musicians.

Method of Procedure

The researcher conducted case studies with three college freshman music majors during their first semester of college keyboard study to see if the application of music history and music theory in keyboard study would facilitate the development of beginning stages of critical thinking.

The researcher designed a student workbook (Appendix A) and a teacher's guide (Appendix B) based on research on critical thinking literature and from her college keyboard teaching experience. The workbook included weekly activities that fostered beginning stages of critical thinking in keyboard study. The activities in the workbook were designed to follow the six stages of Bloom's taxonomy of objectives for the cognitive domain. The six hierarchical classes of objectives in that domain are rated in order from the lowest to the highest level: knowledge, comprehension, application, analysis, synthesis and evaluation. Following are sample questions that were used with these various categories:

1. Knowledge (items of factual information)

   Question: Who wrote this piece?

2. Comprehension (understanding, obtaining meaning from communication)

   Question: Why do you think the composer used four beats of rests in measure 24?

3. Application (using information and principles to solve problems)

   Question: Given what you know about the use of harmony in the piece and looking at the title, when do you think the piece was written?

4. Analysis (Demonstrating understanding by looking at the individual parts)

   Question: Where does the first theme first appear? Explain how it is used throughout the piece (alternates between hands, changes keys etc.).

5. Synthesis (arriving at an understanding by looking at the larger structure or by combining individual elements)

   Question: After looking through the whole piece, do you find other themes present? Discuss how they relate or contribute to the action (shape, form) of the work.

6. Evaluation (arriving at value judgments)

   Question: How do you justify the inclusion of this piece in a repertoire book entitled, *Masterpieces of the Romantic Era*.

The questioning process is applicable to many different kinds of activities throughout the workbook. Although not all six objectives in Bloom's taxonomy are found in every weekly assignment, the various activities were planned to engage students in critical thinking to derive

value judgments about the music studied as well as to assess their preparation, performance, and personal growth as performers.

The workbook was designed to cover a period of nine weeks. This allowed the researcher the remainder of the semester to summarize and arrive at conclusions about the study. At each weekly session the students followed a schedule of activities to be completed during the lesson. An outline of the procedure was given to the student at the beginning of each lesson. The activities involved the researcher (teacher) and the student working through the activities together. At the conclusion of the lesson, the student received an assignment sheet that included specific activities to be completed during the week in preparation for the next session.

In addition to the weekly assignment, the students received a practice record form (Appendix C) to record their amount of practice, practice procedure, and personal observations concerning practicing and any other pertinent information. Discussion of the student's observations occurred at the beginning of each weekly session.

To determine the effects of incorporating specific critical thinking activities into keyboard study, the researcher focused on three college music majors (one piano major and two who were studying piano as a secondary) during their first semester of keyboard study. In addition, one other piano major and two piano secondary students were included as backups to insure validity of the study in the event that one of the first three could not complete the course of study. The

students for the study were selected by the researcher and the other members of the college keyboard faculty at the time of their keyboard placement auditions at the beginning of the fall semester. Three levels of playing proficiency were used in the study: early intermediate, late intermediate and advanced. While this is not essential to the study, the activities presented in the workbook are applicable to students of varying abilities. Playing levels were determined by the audition, by the extent of previous study, and by evaluation of the keyboard faculty.

Each student participated in a weekly fifty-minute keyboard session for a period of nine weeks with the researcher as the instructor. The usual lesson time for a one-hour credit of study at the researcher's college is twenty-five minutes. The students participating in the study received double the lesson time for the one hour tuition cost. This additional "free" lesson time was to compensate the student for the extra work involved in the course of study. At the first lesson the students completed a questionnaire (Appendix D) concerning their previous keyboard study. During the lesson the instructor apprised the student of the course of study and gave the student a detailed explanation of the planned activities. The instructor asked the student to purchase a cassette tape to be used during each lesson and a three-ring notebook to keep the weekly assignments and practice records. The researcher recorded all listening examples and provided a pre-recorded tape for the student to use for listening assignments.

The workbook activities were the same for all three students involved in the case studies. The repertoire varied according to the playing level of each student. Students were asked to purchase only the scores of the four pieces selected for in-depth study in preparation for performance-level playing.

During the course of the nine weeks each student was assigned four pieces for in-depth study to be completed during the semester. These pieces constituted the repertoire to be used with the assigned activities. Two selections from the four in-depth pieces were memorized and performed for a jury exam at the conclusion of the semester. In addition, other repertoire furnished by the teacher provided the background needed by the student to complete additional assignments. This latter repertoire did not require preparation to performance level.

Included during the course of the nine week study were listening assignments for identification and comparison of periods, musical styles, composers, and for critical analysis. During the seventh lesson, students took a listening test from a tape of works not previously heard. They were asked to identify the historical period of music and to suggest a possible composer, listing reasons for their choices. The listening tape used for the test included eight excerpts of keyboard repertoire from the four stylistic periods.

At the conclusion of the fourth week the instructor gave each student a piece that was untitled and the composer unnamed. Based

on knowledge acquired during the first four weeks, the students were asked to identify the period and possible composer stating reasons for their conclusions. As an additional assignment, students selected a piece from repertoire provided by the instructor to prepare entirely on their own. The purpose of this activity was to demonstrate understanding of the music, as well as the ability to prepare the piece technically. The instructor heard the piece at the conclusion of the ninth week. The students were asked to explain their reasons for performance decisions. The students were assigned a paper, due at the conclusion of the ninth week, in which they were asked to evaluate the course of study. This opinion paper did not affect the grade.

The researcher video-taped the weekly lesson of each of the students selected for the study for the purpose of documentation and evaluation of the progress of the study. The students viewed the tape of their fifth lesson and wrote accounts of their assessment of their performances.

Prior to each lesson, the researcher completed a written account of the former lesson (Appendix E) following the viewing of the video. These accounts were filed in the students' individual folders and were used in the evaluation of the study.

The researcher viewed each video and evaluated each lesson in the following ways:

1. Wrote a report detailing observations concerning the students' responses to questions, suggestions, and

information presented, preparation of assigned weekly activities and repertoire, enthusiasm or lack of toward assignments and repertoire, motivation, acceptance and completion of assigned activities.

2. Tabulated the number of questions posed by the students.
3. Recorded the amount of lesson time spent in monological (teacher talking) and dialogical (teacher-student) conversation to determine if the lesson allowed the students the opportunity to engage in questioning and thinking as well as to determine if the teacher was talking too much.
4. Noted the progress of the performance of the assigned repertoire to determine if the weekly activities enhanced the learning process as well as the performance by comparing the performances of the preceding weeks.

The researcher made file copies of the students' weekly practice records. This helped the researcher note any changes in practice efficiency. Also, the researcher made a written evaluation of each student's work on the "on your own" piece and entered the student's score on the test taken from the listening tapes. A further tool for evaluation was the written evaluation by the student at the conclusion of the ninth week of the study.

In a study such as this one, the researcher had to judge the results on a relative scale of value. The assessments by the researcher necessarily included subjective evaluation.

Because this study was qualitative in nature, it was holistic, multi-dimensional, ever-changing, and could not be measured as a single fixed phenomenon. Critical thinking is not easily evaluated by the traditional method of standardized examinations. Evaluation of the thinking process itself was the goal rather than obtaining correct answers. No pre-existing constructs could be used to explain or assess critical thinking in keyboard study. This presented the difficulty of selecting a tool by which to make evaluative judgments of the internal validity of the study. It was necessary for the researcher as observer to understand the perspectives of those involved in the study.

It was the responsibility of the researcher to assess the internal validity of the study. The weekly written reports from the viewing of the lesson videos, the written accounts of the dialogues with the student, observation of the student's understanding of the workbook activities evidenced in competent completion of assignments, the student's progress in learning the repertoire and the evaluation of the course of study by the student were considered when determing the internal validity of the study. The researcher used the SOLO taxonomy (Biggs and Collis, 1982) as a tool to assist in determining the effects of using the workbook activities to facilitate the beginning stages of critical thinking in keyboard study.

The SOLO taxonomy has been used with proven success (DeTurk 1988) to rate students' thinking by ranking their written essays according to five categories representing increasingly sophisticated

levels of critical thinking reflecting conceptual knowledge and its structure. Students of DeTurk were asked to write an essay in which they described, analyzed, and evaluated in musical terms a composition heard or performed. The essays were then assigned to one of five categories based upon their content and structure.

Based on excerpts from sample student essays described by Boardman (1989), the researcher developed the following description of the five categories of the Solo Taxonomy:

1. Prestructural--no structured learning of the subject. Example: "The piece made me feel happy. The second song was different because it sounded sad." (no musical concept cited).
2. Unistructural--a single lower-level musical concept or fact is commented on. Example: "The piece had a strong beat. The other piece was peppy and had a light beat." (single concept cited).
3. Multistructural--several not well unified musical concepts are presented. Example: "There are some instruments playing and people singing. In the first piece there is a lot of difference in loud and soft but the second stays pretty much the same." (three musical concepts stated).
4. Relational--a group of higher level concepts (form, orchestration, style) are present unifying evidence into answers that deal with the assignments as narrowly defined. Example: "The first piece used an orchestra, the second a jazz

band. The first piece had a warm and flowing tone, the second sounded loud and harsh. The first piece had a contemporary sound. Both pieces had different sections or forms within them". (Four lower music concepts cited: instrumentation, medium, dynamics and timbre. Two higher music concepts cited: form, historical style period.)

5. Extended abstract--"The first piece had three sections. The orchestra played in a minor key, had full chords, dynamic level was forte. The second piece had two sections that contrasted and used different instruments to bring out different themes. The mood was gentle and relaxed. Since the pieces had different purposes, it is hard to compare them." (Three lower music concepts cited: medium, dynamics, and tempo. Three higher music concepts cited: form, tonality, musical function.)

The conclusions determined by the researcher will be considered more valid with repeated observations or replications of the study. It is the hope of the researcher that the findings derived from this study will demonstrate the importance and desirability of including planned critical thinking activities into keyboard study. By using the workbook as a regular part of instruction, keyboard students should not only improve technical skills, but begin to draw connections between the various musical elements that contribute to their becoming effective keyboard performers.

Limitations

This project was limited to three students at William Jewell College, a small Liberal Arts college in Missouri. One student was selected from each of the following performance levels: early intermediate, late intermediate and advanced. One of the three was a piano major, the other two studied piano as a secondary emphasis. Instruction covered a nine week period, limited to one fifty-minute lesson per week. It was necessary to amend the plan to accommodate the student's progress, time available at the lesson and, in some instances, the repertoire chosen for specific students.

Organization of the Study

The study is divided into six chapters. Following the introductory chapter, Chapter Two presents a review of related literature on critical thinking. Topics included in the review are definitions and characteristics of critical thinking, studies focusing on critical thinking in music, critical thinking types of activities in piano study, teaching critical thinking in other disciplines and the definitions, characteristics, and use of case studies in research.

Chapter Three documents the weekly activities of the early intermediate level student. Chapter Four documents the weekly

activities of the late intermediate level student. Chapter Five documents the weekly activities of the advanced level student. Chapter Six summarizes the data and presents conclusions based on the responses and evaluations of the three students involved in the case studies and the evaluations of the researcher.

CHAPTER TWO

RELATED LITERATURE

Chapter II presents a review of the literature on the subject of critical thinking. Topics included in this review are definitions and characteristics of critical thinking, studies focusing on critical thinking in music, critical thinking types of activities in piano study, teaching critical thinking in other disciplines and the use of case studies in critical thinking research.

Definitions and Characteristics of Critical Thinking

Although the definitions of critical thinking vary, there is agreement among the writers on this subject that higher order thinking processes must be involved. There must be the personal involvement of the thinker, drawing upon his or her own knowledge to make evaluations and reach conclusions in the problem solving process.

Neimark (1987) states, "Thinking is a symbolic activity whose goal is understanding. It is a behavior with two properties or necessary component activities; the manipulation of symbols and the imposition of meaning" (p. 3). She suggests:

> Meaningful thinking and understanding is organized with respect to a framework or set of principles. The quest for understanding is not simply collecting unrelated facts, but also relating them into an organized body of knowledge that provides the foundation for further enrichment of understanding. (p. 10)

Taylor (1993) quotes an unnamed author who wrote that "critical thinking is the opposite of uncritical thinking." Taylor concludes that the uncritical thinker is "someone who passively accepts as true what someone else says, often because that person is seen as an expert." He then defines the critical thinker to be:

> Someone who doesn't blindly accept the judgments of the "experts" but instead subjects those judgments to a rigorous analysis to determine the degree of their validity; someone who considers the full range of existing data, including the judgments of the experts, in forming his or her own judgments; someone who is able to clearly articulate the reasons why s/he has made a given judgment; and someone who realizes that there are many questions for which there are no right or wrong answers, but is willing to commit to positions on issues while remaining open to a reconsideration in light of new data. (p. 2)

Ennis (1989) and Norris (1989) describe critical thinking as "reasonable, reflective thinking that is focused on deciding what to believe or do" (p. 3). The term reflective continually appears in

attempts to define critical thinking. Dewey (1933) suggested that intellectual and reflective thinking are related to the desire to first discover a problem and then attempt to find its solution. He believed that the thinking individual places as much importance on identifying a problem as on solving it. He viewed man's existence as a "challenge to thought" rather than an "object of knowledge" (p. 9).

Paul (1994) contends that:

> at every level and in all subjects, students need to learn how to precisely put questions, how to define contexts and purposes, how to pursue relevant information, analyze key concepts, derive sound inferences, generate good reasons, recognize questionable assumptions, trace important implications and think empathically within different points of view. (p. 3)

According to Paul, critical thinking is a way of doing everything because humans cannot do anything without using their thinking in some way.

A definition of critical thinking offered by Ruggiero (1988) suggests that, "thinking is any mental activity that helps formulate or solve a problem, make a decision, or fulfill a desire to understand. It is searching for answers, a reaching for meaning" (p. 2).

The National Council for Excellence in Critical Thinking Instruction (1991) defines critical thinking as:

> The intellectually disciplined process of actively and skillfully conceptualizing, applying, analyzing, synthesizing or evaluating

> information gathered from, or generated by, observation, experience, reflection, reasoning, or communication, as a guide to belief and action.

The authors of *Dimensions of Thinking*, Marzano *et al* (1988) posit that in the thinking process:

> comprehension is the process of generating meaning from varied sources, and the process of comprehending involves extracting new information and integrating it with what we already know to generate new meaning. (p. 42)

These authors espouse the view that knowledge and control of process are components of metacognition. They identify three types of knowledge essential to metacognition: Declarative knowledge which has to do with facts; procedural knowledge which is the result of knowing how to do something in the subject domain; and conditional knowledge which is referred to as knowing why a given strategy works or when to use one skill or strategy as opposed to another. It is the last two types of metacognition that involve critical thinking.

Declarative knowledge can be acquired through memorization. Knowledge acquired by rote is not helpful in solving unfamiliar problems or thinking about complex issues. Acquiring large amounts of information does not insure that it will be used in subsequent reasoning. It is important that the teacher plans activities and includes questioning that will address these three types of knowledge for musical thinking. Kurfiss (1988) states, "Teachers who use inquiry

methods encourage students to analyze a situation in search of causal factors." She defines critical thinking as:

> an investigation whose purpose is to explore a situation, phenomenon, question or problem to arrive at a hypotheses or conclusion about it that integrates all available information and that can therefore be convincingly justified. (pp. 34-35)

Norris makes a similar point when he states "learning to think critically is in large measure learning to know when to question something, and what sort of questions to ask" (p. 178).

The idea that critical thinking always begins with a problem and ends with a solution is discounted by Meyers (1986). According to Meyers, "A central element in critical thinking is the ability to raise relevant questions and critique solutions without necessarily posing alternatives. It is sometimes necessary to look for logical contradictions" (p. 7). He suggests "Certain aesthetic elements of critical thinking— the pure pleasure of playing around with ideas also clearly are not related to the instrumentality of problem solving" (pp. 7-8).

In their handbook, *Learning to Think Critically,* Wade and Travis (1987) suggest, "The critical approach rejects simplistic either-or thinking and calls for a continued refining of hypothesis" (p. 5). This view applies particularly well to music teaching in the keyboard studio. Experimenting with ideas as to how the music might sound played in different ways is one method of addressing the aesthetic elements of

thinking rather than the need for specific problems with specific solutions.

Not all educators are in agreement with the critical thinking movement. Some claim it is simply elevating a normally occurring process to the status of a myth. Rath (1967), a leading proponent of teaching for thinking, agrees that critical thinking is normally present in the operation of the classroom, but states that this presence must be more than coincidental.

> Experienced teachers find that they have been using thinking-related operations in their classrooms [or studios] for years. Comparing is certainly nothing new. What is new is the theoretical framework which links thinking with behavior and the idea, that, as teachers concentrate on teaching for thinking, the behavior of students in relation to thinking will change. In order to concentrate on thinking, teachers by design, provide opportunities for thinking each day. It is not enough just to be aware of thinking operations and to use them once in a while by chance. (p. 242)

There is diversity of opinion concerning whether critical thinking applications should be content specific and involve thinking skills which are within a particular domain. Theorists who take this view suggest that it is necessary for students to master the particular strategies in the specific content area. It is their belief that critical thinking operates within a particular domain of experience. They

suggest that because each domain has its own set of characteristics, there are no transferable attributes or abilities. The view proposed by most supporters of critical thinking suggests that thinking skills are transferable, context-free and should be incorporated into every content subject. The proponents of this general-skills approach suggest that a subject area, once learned, can be transferred from one content area to another.

Ennis supports the idea that critical thinking should not be taught in isolation, but should be taught with a combination approach that includes a "separate thread or course aimed at teaching general principles of critical thinking" and subject specific teaching. (p. 5)

McPeck (1981) disagrees with the general-skills approach by claiming that there can be no critical thinking that is general-thinking since all thinking is necessarily about something specific. Furthermore, McPeck believes all thinking occurs within the logical frameworks of subject areas and therefore must remain within the domain of the subject. He defines critical thinking as "the appropriate use of reflective skepticism to establish good reasons for various beliefs" (p. 6).

Brell (1990) in writing of critical thinking as transfer quotes Paul:

> The foremost task in the teaching of critical thinking is less the transmission of any particular knowledge and/or skills than it is the fostering in students of those habits of reflective and reconstructive inquiry which ultimately lead to an ongoing

disposition to seek intellectual, moral and social integrity, or what is sometimes referred to as "the critical spirit."(p. 54).

Perkins (1989) and Salomon in writing about cognitive skills, question whether aspects of good thinking depend more on deep expertise in a specialty than on reflective awareness and general strategies. The two educators present arguments representing both views. They suggest that more protocol studies are needed that examine experts addressing atypical problems within their domain of expertise. It is their belief that the approach to the subject calls for the intermingling of generality and context-specificity in instruction. They suggest a synthesis, "General and specialized knowledge function in close partnership" (p. 16).

Dewey (1933) contends that critical thinking should be the response to any problem. One's response is determined by the problem presented regardless of the specific subject. A problem appears unique because of one's experience with it, and the response of the individual is directed by his past experiences. If a concept has been understood with reasoning, understood and not just memorized, learning has taken place. This idea must be the basis for effective studio teaching. Too often the concepts are presented with rote repetition without the student ever really understanding what is taking place or comprehending the reasoning behind the activity.

Paul divides critical thinking into weak and strong categories. He refers to the weak as "vocational" skills that can be applied to many

subject areas while the strong sense includes a type of basic thinking skill that includes technical reasoning as well as reasoning in the form of what Paul calls dialogical thinking. It is this dialogical (calling for more than one response) thinking that sets one apart as a critical thinker as it becomes an intrinsic part of the thinker's analysis of his or her own cognitive and affective processes. Paul suggests:

> In general, students learn best in dialogical situations, in circumstances in which they must continually express their views to others and try to let others' views into their own. Unfortunately, the dominant mode of teaching at all levels is still didactic, teaching by telling, learning by memorizing. (p. 246)

McPeck (1981) refers to critical thinking as "the propensity and skill to engage in an activity with reflective as a quality of thinking that is a level of deliberation that at least appears to be capable of offering a plausible alternative" (p. 8). This view is supported by a representative of the American Federation of Teachers of Critical Thinking Project who stated that:

> Research shows that, when teachers encourage students to ask questions, the comprehension of content increases. Students who ask thoughtful questions develop such skills as identifying assumptions, analyzing arguments, and formulating conclusions. (States Instituting Reforms, 1985, p. 81)

Critical thinking skills must be linked to processes of problem solving that require subjective and objective involvement and experience. Involvement is a key factor in the process. Students will be much more apt to place importance on the subject being learned if they have experienced involvement with it. Pognowski (1987) uses the ocean as an example of the relationship of knowledge and experience. When asked for a description of an ocean, the student who has experienced the strong current, the salty taste of the water, and the feel of the spray will have a much more vivid understanding of the subject than the student who only has read or heard about it. According to Pognowski, "Experience is probably the best foundation for learning—information takes on more meaning when generated by experience" (p. 38).

Students must be led to realize the value of what they are studying. They must be guided through thinking which links what they already know to new material to be learned. The teacher must find ways to facilitate the teaching of critical thinking. A major step toward this facilitation is to determine what students know so that the instructor can be selective in the content of the course and the process in which it is presented. Students must first have a foundation of knowledge and the teacher must take into account the background of the students. Marzano *et al* refer to this idea as "schema dependent."

An examination of the way in which students learn indicates they build upon previous structures. To understand the topic, one has

to be able to relate it to other things one knows. There must be connections and interactions to know the subject in question. To isolate a subject without connecting it to prior knowledge, perception, or feeling gives no basis for its identity. The more connections that are made, the more the subject in question is really known. Meyer (1967) states:

> We invariably understand an event or an object, partly at least, by understanding how it came to be, what it is, and if it is an event in the present, by imagining its implications for the future or, if it is an event in the past, by being aware of its implications as realized in history. (p. 63)

According to Woodford (1996):

> The more one knows in terms of available knowledge the more one can think about it. Understanding involves a previous knowledge base. If students are to think critically in music to any significant extent, they will require depth of experience and a secure knowledge base in that domain. (p. 28)

Neimark states that, "Knowledge is not synonymous with understanding because knowledge alone is insufficient equipment for a thinker but one can think with knowledge available to him" (p. 10).

Marzano *et al* (1980) suggest the process of comprehending involves extracting new information and integrating it with what we already know to generate new meaning. They contend the most complex thinking occurs when external stimuli challenge the brain to

(1) draw upon the greatest amount of data or structures already in storage, (2) expand on already existing structure and (3) develop new structures. If thinking skills are taught effectively, students who think effectively will be the product.

Meyer states, "Of necessity, therefore, the thinker is actively engaged in a process of transformation at progressively higher levels of abstraction and connections are formed and new experiences are related to existing knowledge" (p. 65).

Rideout (1992) refers to previously acquired knowledge as "mental presets" which he suggests are "models of musical knowledge, skill and values formed from one's prior experience and learning." He states that these presets "are imbedded in memory and can be invoked, as needed, to provide models of exemplary musical behaviors that focus attention and guide musical learning" (p. 472). Data learned and stored in prior learning situations can be retrieved and applied to present learning activity.

In their book, *Evaluation of Critical Thinking,* authors Norris and Ennis state, "To make a decision one must rely upon some information, background knowledge and previously accepted conclusions—these form the basic support for the decision" (p. 5).

When the teacher fails to take into account the student's background in subject matter, declarative knowledge will have little relevance to critical thinking and problem solving. Kurfiss suggests that if education is only to teach basic facts, then critical thinking plays

only a minor role, and rote learning is sufficient. It must be understood that without expanding the student's understanding of what and why he or she is doing, without using comparison, analogy, and questioning in addition to imparting knowledge, little more than rote learning can take place.

Studies Focusing on Critical Thinking in Music

Although very little research has been conducted in critical thinking in the keyboard studio, there have been studies focusing on critical thinking as it relates to the music content area. In 1989 the book, *Dimensions of Musical Thinking* (Boardman) was published as a sequel to *Dimensions of Thinking* (Marzano et al., 1988). An increasing number of articles addresses the subject in music education journals and publications: (Rheam, 1986; Small, 1987; Pognowski, 1987; Webster, 1990; Richardson, 1990; Whitaker, 1992; Delorenzo, 1987; Cutietta, 1982; Barrett, 1990; Margan, 1984; DeTurk, 1988).

In addition to these articles examining critical thinking in the music content area, writings of perception and cognition in the study of music have been done by Cuddy and Upitis, 1992; Walker, 1992; Fiske, 1992; Miller, 1992; Thomas, 1992; Tunks, 1992; and Woodford, 1996. Of particular interest is the article entitled, "The Role of Mental Presets in Skill Acquisition" (Rideout, 1992). This article examines the influence one's prior experience and learning have on musical

behavior. The article includes the summarization of research conducted by Rubin-Rabson (1941) using nine piano students in an experiment on music memorization that involved two methods of mental practice between physical and analytical pre-study. This type of activity involves critical thinking in the form of analysis, organization, visualization and evaluation.

A second experiment involving keyboard students was done by Coffman (1987). It used three types of mental and physical practice in an effort to improve performance skills. The study was conducted with eighty undergraduate music majors who were not keyboard principals. Mental practice was alternated with physical practice. Again, critical thinking processes were involved, and the study indicated that skill development was aided by the addition of mental practice.

Other research cited in the article was conducted by Ross (1985) determining the success of performance based on five different practice conditions; Trusheim (1987) studying instrumentalists' use of imagery in practice and performance; and Fiske (1986) using experiments on visual discrimination to facilitate perceptual process.

In their article, "Critical Thinking and Music Education", Richardson and Whitaker (1992) list four different types of music education research examining the student's critical thinking in and about music:

1. descriptive studies that focus on musical problem solving.
2. correlation studies that focus on musical problem solving.

3. correlation studies of the relationship between musical and nonmusical variables analyses and measures of critical thinking.
4. verbal protocol analyses of musical thinking based on a Deweyan definition of reflective thinking. (p. 553)

Richardson and Whitaker also describe recent experiments by other researchers in critical thinking in the content area of music education. A study conducted by DeLorenzo (1987) sought to determine the degree of personal involvement in the problem-solving tasks assigned to sixth-grade students. The students were involved in three different types of creative group composition activities: sound composition, event or story-based composition, and composition based on a stated musical concept. Two interesting facts were noted. Students who were heavily involved in the problem used methods of exploration and organization to evaluate sound for its expressive qualities. Those students who were uninvolved rarely based any musical decisions on musical concerns. Another point of interest was that the fewer choices students were given in solving the problems, the lower their level of interest and involvement. DeLorenza concluded that students must make the problem "their own" and this ownership will have a greater influence on their choices of solution than will the choices of the teacher. This finding is of particular importance to the keyboard teacher. It is possible that many students have sat through

years of keyboard study without ever being called on to give their reflections about the music or music problems in their study.

Two studies focusing on the correlation between musical and nonmusical variables and measures of critical thinking were conducted by DeTurk (1988) and Small (1990). DeTurk's research studied the relationship between a student's number of years of experience in performance with critical thinking skills about music. The experiment involved high school juniors who first listened to musical selections and after a second hearing wrote evaluative essays during their English class period. The study showed that students who had six or more years of performance wrote with a higher level of critical thinking.

Small's study was a two-part study. The first phase involved 114 students enrolled in a school of music. Results of their scores on the *Watson-Glaser test of critical thinking* were compared with their *Scholastic Aptitude Test* (SAT) scores and their cumulative grade point averages (GPA's) and evaluated according to types of major: vocal versus instrumental, performance versus music education, and undergraduate classification. In the second phase, a small experimental group (n=8) of students in an undergraduate elementary music methods class were evaluated on critical thinking skills on written exercises in the content area. Results of both studies showed consistency with findings in critical thinking in other fields. In the first phase, results indicated that verbal measures such as the SAT scores often correlate positively with critical thinking scores. In the second

phase, results indicated that instruction in critical thinking skills in isolation from a content area did not affect the students' critical thinking scores. (Ibid., pp. 553-556)

To test the definition of musical thinking as the reflective thinking defined by Dewey (1933), Richardson (1988) and Whitaker (1989) formulated paradigms for ways in which adult musical experts think reflectively in the musical encounter. Richardson used the music critic in her experiment, focusing on the thinking of the critic engaged in a musical experience. She first devised a paradigm by surveying works of several critics to determine the thought processes used in the formulation of music criticism. In the next step she examined thirty randomly selected examples of music criticism by six different critics to see if they supported the paradigm. A third step involved the recording of a stream of consciousness verbal narrative by one critic as he listened to a musical performance. The written and verbal examples then were compared. Richardson concluded that the process of arriving at a musical judgment involves expectation, comparison, prediction and evaluation.

Whitaker investigated the extent to which the performer, arranger and conductor use Dewey's idea of reflective thinking when making decisions about musical problems. Writings of pianists, arrangers and conductors were examined and comparisons made between the thinking of the three groups. Further comparisons were made with stream-of-consciousness verbal statements of two pianists,

two arrangers and two instrumental conductors while engaged in a number of tasks such as rehearsing and studying the score. The study showed five of the six evidenced reflective thinking and supported Dewey's claim that the thinking of subjects is individual.

These two studies give credence to the importance of reflection in the critical thinking process. It is important to include this reflective thinking aspect in the study of music. The critical thinking theorists expound on the importance of cognitive knowledge. The study of music must include the affective component found in Dewey's definition as well as the cognitive aspect of factual knowledge.

Sheppard (1992) conducted a study to determine the feasibility of incorporating critical thinking activities into the conducting curriculum of an undergraduate degree. She designed a workbook to field test specific critical thinking materials for use in the conducting classroom. Ten students participated in the study, which was completed as part of a Basic Conducting course. Of the ten, six were music majors while the remaining four were music minors. The only prerequisite for the course was Freshman Music Theory. Following a pre-test of basic musicianship, the ten were divided into two groups. During the course of the semester the students completed the designed activities utilizing the workbook independently, in small groups, and in the larger class context. Each group had a 30-minute lab session in addition to the combined large group time. One group received additional and more highly individualized skill practice during their

lab session while the second group was engaged in critical thinking activities designed to discover problems in the music studied, and to explore and evaluate possible solutions.

At the conclusion of the course of study both groups were tested to determine the effectiveness of the inclusion of the designed specific critical activities into the control group. The resulting data indicated that although skill levels in conducting did not appear radically different between the two groups, the subjects in the critical thinking lab group did appear to display greater confidence and less anxiety.

Davidson (1990) and Scripp (1990) advocate tracing reflective thinking in the performance ensemble. They suggest encouraging students to take an active role in the musical dialogues that inform decisions about the music of the ensemble performance.
They write:

> Few musicians, ourselves included, would question the premise that performance provides a superior context within which to observe musical thinking. We seek to extend the field of musical thought by observing and assessing how students talk about their work, what they notice in performances, how self-aware they are during performance, and the degree to which they are aware of how their work fits into the larger context of music. (p. 49)

The authors suggest the use of an ensemble rehearsal critique to be completed by the student following each rehearsal. According to

them, the musical performance is, "a compellingly rich arena for charting musical cognitive growth." Through the use of reflective thinking, the student can begin to practice critical thinking and will become, "musically and cognitively equipped to respond to and coordinate multiple view of the ensemble, the music and the performance" (p. 49).

Elliott (1991) writes that, "music is most often conceived as a 'branch of knowledge' in the traditional sense: as something one learns and cognizes purely 'in the mind'". He contends that the concept of procedural knowledge still lacks a secure place in philosophy and particularly in music education philosophy. He elaborates on the differences between knowing that and knowing how. It is this difference that distinguishes critical thinking. He writes that in his book, *Art as Experience,* Dewey points out that in contrast to someone who is merely *able* to do something, the cognitive action abilities of the person who really knows *how* to do something renders the latter's perception of a given situation "more acute and intense and incorporates into it meanings that give it depth" (pp. 97-98).

Critical Thinking Types of Activities in Piano Study

The researcher was unable to locate any studies related to critical thinking in piano study. However, it was determined that some teachers are incorporating activities that promote critical thinking into

keyboard study. This section presents a review of literature that describes these activities.

Sitton (1992) suggests that teaching students how to practice should be a paramount goal of every keyboard teacher. According to Sitton, students should be taught to distinguish between two fundamental kinds of practice: rehearsal, which is "playing through," and problem solving, which involves techniques working through segments of the whole. He further advocates that the applied lesson should be treated as a practice laboratory with the teacher guiding the student through the steps of a well thought-out practice procedure. He states:

> An essential element in the pedagogy of practice is a Socratic approach to teaching wherein the teacher introduces a new piece to the student with questions: "How do you plan to begin learning this piece?" "What is your practice strategy?" The teacher's job is to guide the student, primarily through increasingly specific questions, to a reasonable tactic for the resolution of the difficulty. Educational psychology confirms that when the student is led to reveal answers to himself, instead of being told in direct fashion how to proceed, the student is much more likely to move toward independence in learning. (p. 31)

Westney (1993) discourages the idea of codependence between teacher and student. He proposes that piano students can fall into a

trap of letting the teacher have total control through manipulative behavior and letting the teacher solve their problems. He suggests that piano performing seems most timely and important when it is not solely about itself but about human potential and developing insight into process. According to Westney:

> Music teaches students to think in terms of systems and interrelationships rather than solely in a linear mode; many leaders in business and science advocate this approach to problem solving. By letting each problem reveal its own solution, musicians find surprising resources and learn to free themselves from confining perfectionism. (p. 15)

Pace (1992) states that piano practice is musical problem solving that combines thinking and physical coordination. He suggests:

> While musical thinking has much in common with thinking in other subjects, it differs in that music is a temporal art. Musical performance involves thinking in motion, attending to several things simultaneously while immersed in an ever-changing interplay of ideas, actions, and feelings. (p. 18)

One suggestion offered by Pace is to keep a note pad and pencil on the piano to write down the slightest deviation of attention while attempting to concentrate on the music. He suggests several ways to rely on musical comprenhension when learning a new piece:

1) Select a new piece and set a target date for completion.
2) Study the piece without playing to try to hear it mentally.

3) Sight-read the entire piece.
4) Plan a procedure identifying the easy places from the more complex.
5) Analyze the music in greater detail. Ask questions about the melody, harmony, rhythmic patterns, etc.
6) Find the appropriate fingers, touches, dynamic changes, etc. (p. 18)

Pace further states that:

> Practice is thinking with concentration and control to make everything happen at the right time and in proper balance. When the basic processes for problem solving and musical thinking are set in motion early, they will grow and expand as the subject matter increases in complexity, enabling students to deal effectively with each successive level of problems. (p. 19)

Gates (1993) suggests that his method of teaching is to lead the student musically or physically from where he/she is to where he/she should be. This he often does by questioning the student. According to Gates, "A student's thoughts are important, because any change in his playing will begin in the mind, not in the hands" (p. 29). Gates places responsibility on the keyboard teacher to listen to the student's playing and purports that hearing how a student plays is a teacher's principal challenge in lessons. He suggests that "a student is not merely an extension of the teacher, an agent for his music-making, but an

individual with his own musical imagination and ability, elements that should be stimulated more than corrected" (p. 28).

In writing about the teaching of pianist Guido Agosti (1901-1989), Burnett (1991) describes the many ways Agosti called on students to use imagery, analogy and thinking. She states, "Private lessons with Agosti were intense; there was never any small talk. Students were expected to bring a different composition to each lesson for a thorough discussion, analysis and performance critique" (p. 43).

Haroutonian (1996) advocates developing a performance portfolio for keyboard students with the idea that students can learn to evaluate their own performances critically from the beginning stages of learning a piece to the pre-recital rehearsal. The premise follows the suggestion of gathering a collection of work, showing developing as well as finished products. Haroutounian suggests that the portfolio could include practice journals, listening and written assignments, creative projects, interdisciplinary projects and comment sheets from festivals and competitions. The principal outcome for such a project is that students take an active role in the learning process through participation in problem solving through listening, reflecting and assessment. Haroutounian believes that "Students must learn to listen, with fine-tuned focus, to the sounds they create. As they reflect and create words to describe these sounds, they develop musical sensitivity and interpretive skills" (p. 47). She suggests that by keeping

a performance portfolio the student is able "to develop a personal account of musical experiences in his or her unique way" (p. 47).

Another advocate of listening for learning is Kautsky (1990) who requires her college-level piano students to attend concerts and turn in written reviews. She believes that by instilling both writing and listening skills the playing skills of the students will improve. She contends that it is important that students think through their listening and make musical decisions of their own. She states, "A first step in discovering one's own voice is reacting to those of others: to make decisions yourself you have to realize the decisions are there to be made, that different options are available" (p. 46).

Although differences appear in the teaching strategies of the pedagogues listed in this chapter, there is one ingredient that is common to all—the training of students for problem solving and evaluation.

> The best teachers help students learn to teach themselves, enabling them to progress beyond their mentors' expertise and to continue learning for the rest of their lives. With the resulting independence, regardless of how students use music in later life, they can keep learning on their own with increasing expectations and more rewarding accomplishments. (Pace, p. 19)

Teaching Critical Thinking in Other Disciplines

Scholars active in the field of critical thinking have not been limited to the disciplines of education and learning theory, but have come from a variety of academic backgrounds. The program for the 1993 Thirteenth Annual International Conference On Critical Thinking And Education Reform at Sonoma State University listed 263 presenters representing a large number of disciplines including History, Sociology, Psychology, Social Sciences, English, Nursing, Art, Medicine, Mathematics, Biology, Education, Communication, World Studies and many more.

In the book *Thinking, Reasoning and Writing,* authors Maimon (1989), Nodine and O'Connor write from the perspectives of psychologists, composition scholars, and logicians. Focusing on the field of psychology they write:

> In the period from about 1955 to 1970 American psychology underwent a profound transformation. The prevailing theoretical view had been behaviorism, an approach that focused on observable behavior and dismissed the study of mental processes as inherently unscientific. Although behaviorism continues to have some important practical applications, psychological theory and research are now highly cognitive. The direct study of thinking is widely received as important and scientifically feasible. (p. 1)

Psychologists Mayer (1990) and Goodchild (1990) are in agreement and suggest that psychology students need both basic knowledge and critical thinking strategies to become successful. According to Mayer and Goodchild, the basic units of critical thinking are arguments which the authors define as:

> Assertions along with empirical evidence and theoretical explanations for the assertions. In other words, an argument is a statement describing the world (assertion) along with empirical support (evidence) and theoretical support (explanation for the statement. (p. 9)

The authors suggest that critical thinking is present when the student can both understand and evaluate the argument.

From the perspective of composition scholars, Maimon et al. (1989) state that, "Writing creates situations in which students can learn to think. Intellectual development, like writing, is an active construction, the mind acting on the world, the mind of the writer on the page" (p. 3). It is their contention that the composition student learns to think through revision of what he/she first writes, by teaching students to detach themselves from the object of their thinking and to transform the content of thinking. They suggest peer-review and role-playing as ways that can be productive to the study of writing.

From the perspective of logicians, Maimon et al. caution against assuming that students always acquire good understanding of logic and

philosophy. They suggest that in the logic classroom the teacher should, " Find ways to place students in situations of internal cognitive conflict, out of which we hope to encourage growth" (p. 6). This view indicates the importance of problem solving and agrees with Dewey's assertion that it is only in response to actual problems that students have that reasoning can take place.

Nosich (1994), writing about the need for critical thinking in the field of science states:

> Science teachers are coming more and more to realize that science education is not the same as learning bunches of facts, nor a long list of technical vocabulary terms, nor performing artificial experiments that have no significance for students outside the classroom. (p. 12)

He further suggests:

> More and more science teachers, despite the fact that they are themselves often the product of a didactic education, are becoming convinced that the way this vocabulary is standardly taught often misses the point of *mastering* this vocabulary. The point is to learn to *think critically* in terms of the main concepts in a field and using the vocabulary knowledgeably—not just memorizing it—is an important part of that. Without critical thought, both facts and vocabulary are likely to remain mere bits information, unintegrated, unprocessed, unusable. (p. 12)

In the discipline of nursing, Heaslip (1994) asserts that in North America, nursing is leading the curriculum reform movement for critical thinking. She cites the inclusion of critical thinking as a curricula requirement for accreditation of nursing schools by both the National League of Nursing (NLN) and the Registered Nurses Association of British Columbia (RNABC). She lists the essential critical thinking skills defined by the RNABC in 1990 as information gathering, focusing, remembering, organizing, analyzing, generating, integrating and evaluating. According to Heaslip:

> Nursing requires thinking through nursing problems and dealing with complex issues and concerns so that in the end, the nurse practitioner comes to a reasoned judgment about what to believe or do. We are not educating students for critical thought when we tell them what they should believe or how they should act. (p. 32)

The researcher found much evidence of the teaching of critical thinking in the different disciplines. Although strategies and designs for developing a critical thinking agenda in the different disciplines appear, the same recurring constants are evident—the need for questioning, problem solving and evaluating.

In 1991 the Secretary's Commission on Achieving Necessary Skills, U. S. Department of Labor published *A Scans Report for America 2000*. The report listed twenty-one differences between the didactic and the critical theories of knowledge, learning and literacy.

The first difference purposes that the didactic type of teaching assumes that, "the fundamental need of students is to be taught more or less directly *what* to think, not *how* to think." The critical theory, on the other hand, assumes that, "the fundamental need of students is to be taught *how*, not *what*, to think. This then is the basic premise of critical thinking. In the words of Heaslip:

> The role of the educator, then, is to model the process for the student, raise questions which challenge the student to reflect analytically about the quality of the thinking occurring, and to encourage open dialogue about the difficulties in achieving self-disciplined critical thought. (p. 32)

Definitions, Characteristics and Uses of Case Studies in Research

For a number of years the use of case studies has been important in many disciplines including medicine, law, psychology, anthropology, and sociology. A number of academic fields use case study research for specific purposes. These uses include formulating policies, focusing on individuals to diagnose problems, interpreting behavior, and studying a socioculture. In areas such as law, psychology, medicine, and social work, case studies are used on behalf of individual clients.

In the field of education this type of research received government support in the 1960s and 1970s for studies in such areas as curriculum innovation and school integration. A significant purpose

of the case study design is to seek in-depth understanding of the situation or problem and deduce the meaning for those involved in the study. A major consideration is in process and documentation of the process rather than outcome. Emphasis is placed on context rather than on manipulation of variables and on discovery more than confirmation of an hypothesis. Inherent in the case study methodology is the possibility of presenting a problem and the generating and evaluating of possible solutions. The outcome does not call for right or wrong answers.

Merriam (1988) defines the case study:

> A case study is a basic design that can accommodate a variety of disciplinary perspectives, as well as philosophical perspectives on the nature of research itself. A case study can test theory or build theory, incorporate random or purposive sampling, and include quantitative and qualitative data. (p. 2)

The implementation of the case study must include a research design that plans the assembling, organizing and integrating of information which constitutes the data the researcher deems necessary to accomplish the specific end product or research findings. The case study method does not require any particular methods for gathering data or data analysis. The researcher selects the case study design because he/she is interested in insight, discovery and interpretation rather than in the testing of hypotheses. This approach enables the researcher to concentrate on a single entity or phenomenon, usually

over a period of time. Stake writes, "The uniqueness of a case study lies not so much in the methods employed as in the questions asked and about their relationships to the end product" (p. 35).

There are two basic design of research: experimental and non-experimental. Research using the experimental design assumes that the researcher can manipulate the variables within the study and has a great deal of control throughout the project. Because the major intent of this type of experimental research is to investigate cause and effect relationships, it is essential to assign subjects at random to control and experimental groups.

The non-experimental design of research, often referred to as descriptive research, provides a description and explanation of the phenomenon. There is no prediction outcome since consideration of cause and effect is not present. The researcher neither desires nor attempts to manipulate the causes of behavior. McMillan (1984) and Schumacher (1984) state:

> The purposes of most descriptive research is limited to characterizing something as it is, though some descriptive research suggests causal relationships. There is no manipulation of treatments or subjects; the researcher takes things as they are. (p. 26)

Merriam suggests the case study must possess four essential properties:

1. Particularistic—the focus is on a particular situation, event, program or phenomenon. The specificity of focus provides a good design for practical problems, question, situations arising from everyday practice.
2. Descriptive—the end product of a case study is a description of the phenomenon under study—a literal description of the incident or entity being investigated.
3. Heuristic—the case study illuminates the reader's understanding of the phenomenon under study.
4. Inductive—case studies rely on inductive reasoning. Discovery of new relationships, concepts and understanding rather than verification or predetermined hypotheses, characterizes qualitative case studies. (p. 13)

To test the musical abilities of three and four-year old children, and to identify environmental factors that may be related to the childrens' musical responses, Lenz (1978) studied twenty-seven pre-school children at the Child Development Laboratory on the campus of the University of Illinois in Urbana-Champaign. The children were divided into two groups, each representing an age span of fourteen months. The researcher devised sixty-five tasks that would demonstrate the preschooler's understanding of basic music concepts. Questionnaires and home visits provided information about the musical environment of the children in the study. A journal entry was recorded for each child's response to every task. The entry was in

the form of a diary detailing the observations of the researcher. Conclusions were based on the responses of the children to the devised tasks and a comparison of the singing and music discrimination abilities with the type of musical environment in each child's home.

The case study approach to research often involves the examination of a specific person. The researcher is given the opportunity to develop an understanding of the effects of the study on the subject and can clarify and summarize as the study evolves. There is opportunity to process data immediately since the researcher is the observer and primary instrument for data collection and analysis. There is not the need for a machine, inventory or questionnaire. Bromley (1986) suggests:

> Case studies get as close to the subject of interest as they possibly can, partly by means of direct observation in natural settings, partly by their access to subjective factors (thoughts, feelings, and desires), whereas experiments and surveys often use convenient derivative data, e. g. test results, official records. Also, case studies tend to spread the net for evidence widely whereas experiments and surveys usually have a narrow focus. (p. 23)

Houle (1984) used a case study in his research to investigate patterns of inquiry by life-long learners throughout history. He treated each case in the form of a descriptive study. Each case was presented in narrative form and although there was no relationship between the

subjects in the cases, a concluding chapter offers generalizations drawn from all the cases. There is not a need to prove a hypothesis; rather, the intent to present studies of different approaches to learning by different individuals. This type of descriptive, narrative case study presents generalizations that lead the reader to draw his/her own conclusions.

The reason for selecting the case study method of research depends on what the researcher wants to know. The researcher must decide the nature of the problem and determine the questions it raises. Questions about process (why or how something happens) as well as questions of understanding (what happened, why and how) commonly guide case study research. Stake (1978) writes that "insights into how things get to be the way they are can be expected to result from case studies" (p. 47).

Horricks (1960) used case studies in classes in human growth and development at Ohio State University. He devised case studies for the purpose of determining the ability of students to make a diagnoses and to choose appropriate remedial procedures when presented with complex data in the form of a case study. Four case studies were presented with each case concentrating on a different aspect of human development. The studies were presented in descriptive, narrative form. Following the reading of the case studies, students were asked to respond to statements that had diagnostic implications. Responses

were tabulated according to answer tables devised by Horricks and Nagy (1984). Conclusions were derived from the tabulations.

Of great importance to successful research using a case study is what is expected of the researcher as an observer. The activity of observation must focus on what to observe, the relationship between the observer and subject(s) and the careful and valid recording of observations. There can be many interpretations of what is happening, and there is no standard by which one can take repeated measures to establish reliability in the traditional sense of quantitative and hypothesis-testing studies. The researcher must describe, explain and interpret the results of the study. Rainbow and Froehlich (1987) state:

> The interpretation of one's data should in all cases be accompanied by one's personal experience and insights into the subject matter under study. The conclusions should be guided by the evidence presented as well as by the logical process that led the researcher to the research purpose in the first place. All conclusions should be assembled and enumerated to clarify for the reader how the study answered or failed to answer the purpose of the study. (p. 193)

What to observe is determined first by the researcher's purpose for the study, *i.e.* the questions of interest or the problem or concept being analyzed. Just how much to be observed must be decided by the researcher ahead of time. Concentration can be focused on behavior, the setting, the participant or any number of subjects.

Recording observations is done in a variety of ways. If cost is not a factor, mechanical devices (videotapes, tape recorders, film) can be helpful tools. Taking notes during an observation is a possibility but a full write-up needs to follow as soon after the observation as possible. Merriam suggests that a reasonable rule of thumb is to expect and plan to spend as much time writing notes as one spends observing.

CHAPTER THREE

CASE STUDY ONE: EARLY INTERMEDIATE-LEVEL STUDENT

Chapter Three contains a profile of the early-intermediate-level student and the researcher's written accounts made from the videos of the weekly keyboard sessions. Included in the accounts are the comments and observations of the student. There are also excerpts from some of the written assignments of the student and observations of the researcher regarding the participation and progress of the student.

Profile of the Student

The early-intermediate student chosen for the first case study, was a freshman female music major whose primary instrument is the flute. She is an engaging young woman, rather shy, with a tendency to display nervousness when unsure of herself. Although hesitant at first about participating in the study because of a fear that she might not do well, she agreed to participate after a thorough explanation of the nature of her involvement was made by the researcher.

The student questionnaire completed during the first session revealed that she had studied piano for ten and a half to eleven years. Her study had been with two teachers, the first for six years and the

second for almost five years. The length of the weekly lesson time with her pre-college teachers was thirty to forty-five minutes. In describing her lessons she wrote that there was even distribution of talking time between herself and the teacher, and that her opinion was solicited for suggestions on interpreting the repertoire.

A practice record was kept for the first teacher, but only for the purpose of recording the amount of time practiced. There was no discussion concerning how the practicing was done.

During the course of study some listening to recorded music was included during the lessons but only a few times. No written work was assigned. In response to questions of the types of discussions during the lessons, the student indicated that there was some discussion of musical periods, composers and forms of music, as well as definitions of musical terms.

After reading the answers on the questionnaire, the researcher assumed the student would be quite knowledgeable about many aspects of the study of music. It was soon evident that this was not the case, however, and by the third session, this fact was also apparent to the student. The length of time the student had participated in piano study proved to be an inaccurate indicator of her skill level. Although the student had studied piano for eleven years, the level of playing was that of early intermediate.

Weekly Session Account

Session One

The first session included much introductory material. As might be expected, the student offered very few comments. Response from the student consisted of yes and no answers to most questions. The talking on the part of the teacher consisted mainly of explanation. A viewing of the video of the session showed that the researcher asked twenty-nine questions while the student asked only three.

The student's responses to the questions asked about the composers, dates, and periods of music history of the works being examined revealed that the student did not know the answers and supplied incorrect guesses. A comment was made by her that she really would like to know more about why music could be divided into different periods. This led easily to a comparison of the stylistic characteristics of the two works from the Baroque and Classical periods. The student was eager to learn and was enthusiastic in her interest as further discussion occurred.

The area of practice procedure elicited the most discussion. She entered very easily into the dialogue. Her comments indicated that she realized her technic was very weak. Her previous study did not emphasize how to practice, but rather concentrated on learning the notes of the repertoire as quickly as possible. Being asked to examine a

work and identify potential trouble spots was new to her as was devising practice strategies. She displayed a great interest in these approaches.

This lesson involved planning the goals for the semester. Since no music had yet been assigned, there was very little playing done apart from that done by the researcher for the purpose of demonstration. The weekly assignment for outside work was given to the student at the conclusion of the session.

Session Two

As the second session began, the student excitedly began telling how the practice procedure discussed during the previous lesson really helped her see what she needed to do. She asked several questions concerning ways to strengthen her fingers and hands. This led to a discussion of possible ways of practicing technic with a look at several technic books for daily exercises to be incorporated in her practicing. The student had selected *Sonata in F Major,* K. 274 by D. Scarlatti and the Allegretto movement of *Sonata,* Op. 10, No. 2 by Beethoven to use for in-depth study based on her assessment of what would be most beneficial to develop her playing technic. She related that this was the first time she had been given the responsibility of selecting her own repertoire.

A problem of incorrect rhythm appeared in the section of the Allegretto movement. A session of counting out loud helped correct the mistakes. A good discussion followed concerning practicing procedures with much dialogue between the student and the researcher. Written comments by the student in the practice journal included the following:

> This practicing is really different. Now I realize that I'm doing things differently. I tried to just ignore the amount of time and really work. I've always tried the easy way and not worked things out. I really realize my problem in learning. My problem has been skirting around, not really working something out.

The session continued, the student playing the section of the Scarlatti Sonata. Discussion centered around information about the two composers and a comparison between the musical characteristics of the two periods. The student was very interested in setting goals for herself for the next session.

The lesson was very productive, and the student was receptive to the activities completed during the session. In contrast to the previous session, dialogue during this session was evenly divided between the student and researcher. The video showed that the number of questions posed by the student was fourteen. An overall indication of critical thinking was the many student comments concerning her realization of what she had not done in previous practicing and what she needed to do now. The amount of

questioning by the student facilitated the dialogue between the researcher and the student.

Session Three

The third session began with a discussion of the outside listening assignment of the tape recording of Baroque and Classical keyboard music. The student related that she could hear a difference in the exactness of tempo between the two periods. She said that the Baroque pieces seemed to have a constant driving movement and the Classical pieces seemed to have less rigidness. She also had noticed more melody in the Classical pieces. She observed that it really helped her to know what to listen for as a result of the discussions during the previous sessions. She also mentioned that the discussions had helped her listen in a different way to the pieces played by pianist Arnaldo Cohen at the concert she had attended during the week. In questioning her about whether she could identify subsequent works heard from the Baroque and Classical periods, her response was she would be able to do so more readily now than previously because she would listen for specific things in the music.

The next segment of the session involved the tape recording of the student's playing of the two pieces selected for in-depth study. The result of this activity proved to be very satisfactory. This was the first time the student had participated in this type of activity in her

keyboard study. The most significant result for her was that she realized she was not doing what she thought she was in her playing. She was surprised to hear how uneven her tempo was in the Scarlatti Sonata. She commented that she could hear how her fingers did not play evenly on the notes. She could tell that her thumb was really heavy in the Beethoven piece. She said that she knew now why she had so much trouble trying to play the second movement of the Moonlight Sonata because she didn't have good finger control. She also said she realized that she probably wasn't technically ready to play that work. She was able to critique her performance of the works and applied good thinking skills to assess what she heard.

An interesting observation of the researcher was how much at ease the student was in the third session. Much can be attributed to the fact that there was a great amount of dialogue taking place. It was evident that in soliciting the opinion of the student, there was the opportunity for her to feel that her comments were important. As in the previous session there was about equal amount of dialogue between the student and researcher. Only three questions were asked by the student.

Critiquing the performance of a concert artist was a first time experience for the student. Her critique was based on her impressions of the technic she observed. In her words, she was "amazed at the many things he was able to do with a piano." It was gratifying to read how she related her observations to her playing, especially in the aspect

of looseness of arms and hands as well as touch on the keys, things that had been worked on in her playing. The critique showed that the student had thought through her observations. Although the critique lacked details, her comments indicated that she had listened with an attempt to apply thinking skills. She related that she had listened in a more concentrated way than in other concerts she had previously attended.

Session Four

The first half of the fourth session was spent working on the Scarlatti and Beethoven pieces. Discussion centered around ways to improve the playing. The student commented that she found that she was able to learn much more quickly because of the type of practice procedures she was using. She said she had worked in small sections and had really concentrated on perfecting the sections instead of playing through the whole piece. She related that during one practice session she had worked thirty minutes on just four lines and was pleased that she was able to play the four lines easily the next day. This led to a discussion of the next step which was to begin memorization of one of the selected works. The student had not previously been instructed in any specific memorization techniques. She stated that she "just played my pieces over and over until I knew them by memory."

She was intrigued by the idea of applying specific techniques of memorization in her practicing and set a goal of memorizing the first half of the Scarlatti Sonata during the next week.

The period was almost over, and there was not enough time to cover the remainder of the assignment which included a discussion of the stylistic characteristics of the Romantic period of music. The next session would need to cover this as well as the definition of the musical terms outlined in the weekly assignment.

The dialogue between the student and researcher was less evenly distributed during this session because much of the talking was done by the researcher in discussing techniques of memorization. The student's comments centered on her observations of her practicing during the previous week. No questions were asked by the student during this session.

Session Five

Upon arrival at this session, the student asked if she could play her memorized sections of the Scarlatti Sonata. She was quite animated as she related how easily she was able to memorize by analyzing what "the music was doing." She related that she felt very confident in the memorization she had done.

Following the memorized playing and discussion, the next part of the session dealt with a look at the Romantic period observations

the student had made from listening to the tape recording of selected repertoire from that period. The student was able to make good comments concerning the stylistic aspects of the period and the comparison of the three periods discussed thus far. She talked about hearing a melody that she could sing in the Romantic pieces. In comparing the Baroque pieces with the Romantic, she described her impression of Baroque music as resembling machines that are programmed for constant movement. The Romantic period music had "mood swings." Approximately five minutes were spent looking at dynamic and expression markings in two pieces from that period provided by the researcher. Discussion followed concerning the reasons for the composer's markings. At all times through the discussion the researcher solicited the opinion of the student. The researcher explained that the next assignment would involve the student's editing a Romantic period piece from which all printed expression markings had been deleted. The assigned piece for in-depth study from the Romantic period piece would be selected by the student during the next week. This assignment was scheduled one week earlier in the workbook, but time constraints made it necessary to postpone it for one week.

The concluding time of the session was spent discussing the definition of the musical terms assigned previously. The student related that she was able to define twelve of the twenty-six terms correctly without the need to research them. Upon questioning by the

researcher, the student expressed that the practice journal was proving to be very helpful. She related that she liked writing down what she was doing because that helped her to think about how she was practicing. When she read what she had written, she realized she was really practicing instead of just playing the pieces.

The student did most of the talking during this session. A good portion of her talking concerned her observations of the listening tape. No questions were asked by the student during the session. Most of the talking done by the researcher was in the form of questioning.

Session Six

At this point in the semester the schedule in the handbook had fallen one week behind. This can be attributed to two factors. The first is that the researcher planned too many activities to occur within some of the weekly sessions, and the second is that the amount of interaction taking place during the sessions had been even more than anticipated by the researcher.

The first part of this session was spent working on the three pieces the student had selected for in-depth study. The student selected *Old French Song* by Tchaikovsky for the Romantic period piece. She said that she decided to select a piece that was easier than the Scarlatti and Beethoven so that she could learn it more quickly. Fine progress

was evident in the Baroque and Classical pieces. Memorization had been completed on the Scarlatti Sonata. The student indicated that she was also beginning to memorize the Beethoven piece. The first half of the new piece was played very slowly. The student agreed to work on the whole piece during the next week.

The Romantic piece that she edited, *To A Wild Rose* by Edward MacDowell, was compared with the printed version. A total difference in interpretation was found in only two places. The student used a crescendo marking at a phrase ending as opposed to a dimenuendo in the printed score, and in another place the student used *mp* as opposed to *pp* in the printed score. Responses as to why the student marked the piece as she did showed careful thinking. The activity was a good exercise in studying the music carefully and analytically.

The remainder of the session was spent looking at twentieth-century keyboard works. In questioning the student about her observations on twentieth-century music, her response was that it was music that sounded strange and didn't really have a melody. She couldn't name any composers from the period. The student was given several works from the period to select a piece to study as the fourth and last piece of assigned repertoire for the semester. The assignment for the following week included listening to the section of twentieth-century music on the listening tape.

At the conclusion of the session the student was given five pieces from which to select a piece to be learned completely on her own. The piece was assigned to be heard in two weeks.

This session involved more playing of repertoire by the student than the previous sessions. Dialogue between the student and researcher flowed easily. The student discussed the reasons for her decisions in the edited piece very confidently. The researcher did approximately sixty percent of the talking during this session. Much had to do with explanation of twentieth-century music. No questions were asked by the student during the session.

The researcher elected to omit the assignment asking for the paper summarizing the characteristics of the four periods of music. This decision was based on time constraints and the good discussions that had taken place at the weekly sessions. This allowed this student (as well as the other two students participating in the study) to concentrate more on practicing the assigned repertoire as well as to focus more on the remaining listening and observing activities.

Session Seven

This session was divided into two halves. The first half was spent working on the repertoire the student was playing. The Scarlatti and Beethoven pieces were played at performance level. The pieces were played a second time while being tape recorded. The purpose of

this activity during the session was to engage the student again in critiquing her performance. In addition, the student was assigned to view the video of the session and write a summary of her observations.

The student was pleased with her playing of the Scarlatti piece. She commented that she could tell a definite contrast in the terraced dynamics. She said that she had really worked on bringing out the difference in the dynamics. She observed that her tempo was much more steady than when taped previously. She stated that she still needed to do more to "get the Beethoven where it needs to be." When questioned what was lacking, she replied that the her playing was not always controlled. When asked what she could do to correct that problem, she replied that she needed to practice more with the metronome and to listen more to her playing.

The twentieth-century piece selected by the student, *Pink* from *Sketches in Color,* Set One by Robert Starer, was in the beginning stages of learning. The student asked if she could work on it one more week before playing it at the session. The piece from the Romantic period was played and discussed. The student related that she felt the most at ease with the piece from this period. When asked why this was so, she replied that she found it easier to learn a piece that gave her more opportunity to express herself. She also said that she could more easily relate to a melodic line that she thought was more singable. She made the decision to select this piece to perform for the semester jury along

with the Baroque period piece. Following this part of the discussion, she stated that the contemporary piece was much harder for her to learn because she really couldn't see a lot of pattern or sense to it. The researcher suggested that the second semester could begin with a more concentrated study of twentieth-century music.

The last fifteen minutes of the session were spent on the ungraded listening test which consisted of eight very short excerpts of keyboard music from the four stylistic periods. Two examples were played from each period in random order. As the student listened, she wrote her choices along with reasons for the decisions. The student correctly identified six of the eight examples. The reasons given showed development of thinking skills as she was able to apply the knowledge she had gained to the process of correct identification. This activity proved to be very satisfactory to the student. She was pleased that she knew what to listen for and commented she would not have been able to even know how to listen before beginning her keyboard study this semester.

There was less discussion during this session. No questions were asked by the student. Most of the talking was done by the researcher and consisted of questioning the student about her preference for Romantic period music. The student's comments were mostly in response to questions.

Session Eight

This session began with the student's playing the four assigned pieces. The Scarlatti and Tchaikovsky pieces were played very well. The Scarlatti was completely memorized and the Tchaikovsky was partially memorized. After playing the Beethoven piece, the student related that during her practice sessions the previous week she seemed to be having more difficulty playing with clarity in the fast sections of the piece. The researcher asked her to analyze the reasons for this. The student answered that as she viewed the video of her last lesson, she noticed tension in her wrists and arms. The student commented on her observation of the relaxed body movement of Arnaldo Cohen. The researcher offered several suggestions for working with less tension as well as using staccato playing for eveness of touch on the keys.

Following this discussion, the Romantic period piece was played again. Immediately following her playing, the student commented on feeling much more relaxed when playing that piece. When asked what the reason for this might be, she replied it was perhaps because she could "feel the flow more of the line of the music." She stated that she realized now that when she was learning the slow movement of the "Moonlight Sonata," she probably played with too much freedom of interpretation. She said she thought that she would play it differently now because she understood more what she should be listening for in the music. The researcher asked if she thought music of the Classical

period need to be expressionless. The student replied that she did not mean that it should, but felt the Allegretto was more difficult for her because she was more conscious of needing to keep the style of the period in mind. When asked what she meant by that she said, "I guess what I mean is that it has to be so exact all the time."

The twentieth century piece was played and discussed. The student stated that this was the piece that she always practiced last because she liked it least. This was because it didn't have a melody or any pattern. She said she wondered how the composer could associate the piece with the color pink. Her idea of pink was something that should sound light and dainty. At the student's suggestion, the decision was made to wait until the next session to hear the piece the student had learned on her own.

The last part of the session was spent examining several pieces of music for identification of periods and possible composers. The student was able to correctly place each piece in the proper musical period, a feat that pleased her. The composer identification was done by matching her knowledge of composers to the correct period. Although the actual composer was not correctly identified for each example, the composer named was correct for the period of each example.

This session afforded a good balance of dialogue between the student and the researcher. The student actually did more talking than the researcher. The student offered her opinion several times without

prompting from the researcher. Although no questions were asked by the student, there was good evidence of increased understanding of the musical style of the four periods and a better grasp of performance considerations of the repertoire. There had been continual observable progress in the performance of the assigned repertoire. The following remarks taken from the student's written observations of the viewing of the video illustrate the acceptance of the type of study being done during the semester:

> As I watched the video of my piano lesson I am very glad I can study characteristics of periods in keyboard music! I like the way these lessons are set up better than my previous keyboard study because I learn a lot more how to interpret music. Previously I was assigned a couple of pieces. I took them home to work on for the week and I returned the next week and played them through. That was basically my piano lesson. We never analyzed the way I have in college. I like discussing things a lot more because it forces me to think about how I am playing the piece and how I can improve. The video showed me the things that needed work, also the things I do well.

Session Nine

This was the final session that included the workbook activities. This last session was used to hear the repertoire that included all four

pieces being studied. The student also played the piece learned on her own, *Serenade* from *Children's Festival* by Octavio Pinto. Her playing reflected a growing understanding of the concepts that the researcher was guiding the student to grasp. The student demonstrated awareness of stylistic aspects of the historical period, technical aspects and interpretive considerations. The researcher's evaluation of the student's work on this piece follows.

The student played the piece well and, although not up to a final performance level, the tempo was steady and controlled. Dynamic markings were well observed, and the piece was played very accurately. When questioned about her decisions concerning interpretation, the student's answers indicated good thinking as she talked about the melodic line, the harmony and the style of the period. She indicated that she had considered the title of the piece in her interpretation decisions. This demonstrated a clear understanding by the student of the requirements of the piece. In addition, good suggestions were made by the student for practicing the piece.

At the conclusion of the session the researcher explained the remainder of the semester would be spent in final preparation of the repertoire and technic study for the keyboard jury exam. The student's opinion paper was collected as she left.

CHAPTER FOUR

CASE STUDY TWO: LATE-INTERMEDIATE-LEVEL STUDENT

Chapter Four contains a profile of the late-intermediate-level student and the researcher's written accounts made from the videos of the weekly keyboard sessions. Included in the accounts are the comments and observations of the student. There are also excerpts from some of the written assignments of the student and the observations of the researcher regarding the participation and progress of the student.

Profile of the Student

The student chosen for the second case study was a freshman female music major whose major instrument was violin with piano as a secondary instrument. The student appeared very shy and nervous at the initial session. From previous information, the researcher knew that the student was an accomplished violinist. The student was very quiet and offered no conversation apart from answering questions asked by the researcher. The ensuing semester's sessions did little to change this. From other sources, the researcher learned that the

student's father was a public school orchestra director who monitored her music study very closely. It was evident that she had had little input in her own music study.

The questionnaire revealed that she had been enrolled in keyboard study for twelve years. During that time she had studied with eight or nine teachers. When asked by the researcher why so many teachers were involved, she answered that her father wanted to make sure that she had the best teachers. She reported that the teachers did most of the talking at the lessons. Her teachers did very little questioning, and her opinion was rarely asked. A practice record was not used, although her father often recorded the amount of time she practiced. She related that he also attended her music lessons.

Her lessons included no recorded listening and occasionally called for some written theory work. Her father worked with her on music theory, and she had been enrolled in music theory classes at the high school she attended. Her knowledge of music theory enabled her to test out of the first semester of the college theory course. She indicated that her keyboard lessons did include some discussions of periods of musical history, definitions of musical terms, forms of music and composer information. She said she had forgotten much of that information because she had memorized the information for the most part. When asked by the researcher how that type of knowledge was applied to her keyboard study, she answered it really wasn't; it was just told to her by her teachers.

The student was quite surprised to learn that at least four works would be required for in-depth performance study during the semester. Her immediate response was that during her high school years she had always just worked on one major work for the entire school year to prepare it for the annual music contest in the spring. She stated that she was able to really perfect the piece resulting in top ratings at both district and state levels. The realization that she would be required to work on extended repertoire caused her obvious distress. She was apprehensive about what would be expected and whether she could accomplish the required work. Explanation of the semester requirements and the procedures to be used for the workbook activities helped ease her fears.

Weekly Session Account

Session One

The first session began with questioning the student about her knowledge of the historical periods of music. When asked about the approximate dates of the periods, the student was not able to answer and was hesitant to offer possibilities. Her response was that she knew Bach was from the early period, but she didn't remember when that was. She thought the period in which he lived was called the Classical period. The researcher presented examples of keyboard music from Baroque and Classical periods to promote discussion of the dates,

stylistic characteristics, and composers of the period. The student was quick to notice some similarities and differences, although she was hesitant in responding. It was evident that the student was not at ease answering questions.

The researcher asked the student to play the selection she had played for her college audition. She played the piece flawlessly and very musically. This seemed to relax her. This performance led into a discussion of how she approached practicing. Her response was that her previous teacher had always assigned a portion of the piece to be practiced and perfected for each lesson. She related that whatever she played had to be perfected before advancing to another section of the piece. When asked if she was ever asked to determine what to practice, she answered "no."

The final segment of the session included a discussion of practice procedures that she might employ. As before, little conversation was initiated by the student. The researcher asked questions to which the student gave very short answers. The student asked no questions during the session.

The session concluded with an explanation of the assignment for the following week. The researcher gave the student several keyboard works from the Baroque and Classical periods. She was to select one from each period for in-depth study during the semester.

Session Two

The second session began with a look at the written assignment that the student had completed during the week. Although the assignment had been completed, it was obvious that the student had spent very little time in preparing it. The answers were very sketchy and appeared to have been written with very little thought. Discussion followed in which the researcher reiterated the quality of work that was expected. It was evident that the student had not clearly understood the assignment. At this time more discussion of the stylistic characteristics of the Baroque and Classical periods followed.

The most productive segment of the session involved the student's playing sections of the two pieces that she had selected, *Sonata in A minor,* K. 149 by D. Scarlatti and *Sonatina in F Major,* Anh 5, No. 2 by Beethoven. In answer to questions concerning the reasons for her choices, the student answered that she thought she would be able to learn them well during the semester. During the discussion about her practice procedures during the previous week, she said that she had not done anything differently than in her previous practicing. She related that she found it much more difficult to "make herself practice" at college than at home because she hadn't really worked out a good schedule yet. At home she always had a certain time to do her practicing.

The student had selected sections from each piece to be practiced. These were played very slowly and correctly at the session. When the researcher suggested that the student should set goals for practicing for the following week, the student said she would prefer the researcher to set the goals for her.

The critique of the keyboard concert of pianist Arnaldo Cohen was very sparse and showed little independent thinking. Following is the critique written by the student:

> Arnaldo Cohen was an amazing pianist. He had excellent technique. His hands stayed close to the keys so the notes and octaves were always accurate. He was also a very musical player. I think his specialty was Liszt. The Liszt pieces were the best part of the recital, although I really liked the Chaconne also. His expression did seem somewhat manufactured though.

As can be noted, the student's statements concerning the performer's musicality were contradictory. The assumption was that she needed to say something of a negative nature along with the positive comments.

Assessing the student's enthusiasm and motivation proved difficult. On one hand the student had said that she wanted to make significant advancement in keyboard study. On the other hand, the student did not initiate comments, observations or questions. It was apparent she was not in the habit of thinking for herself. As in the previous session, the student asked no questions. The talking during

the lesson was done almost completely by the researcher. The student offered no independent comments and only spoke when answering a question asked by the researcher.

Session Three

The third session began on a more positive note. The student initiated conversation by saying she had enjoyed listening to the taped examples of the Baroque and Classical keyboard music. She stated that she was able to easily hear stylistic characteristics in the works and thought her violin study and the music played in orchestra helped her to do this. The main aspect she used for identifying the periods was articulation, and she related she thought of her bowing technique when she listened to the articulation of the keyboard playing. Since the researcher is also a violinist, there was opportunity to dialogue further on this subject. It was interesting to note the ease with which the student entered the discussion, and there was good dialogue between the student and the researcher rather than talking by the researcher only. Although the student asked no questions, the conversation at this point was balanced between the student and researcher.

The pieces selected by the student were played next. The Baroque piece had been practiced in its entirety. The Classical piece was still being practiced in sections. Both pieces were tape-recorded. The student was surprised to hear the variance in tempo in her playing of

the Scarlatti piece. Time was spent working with the metronome. The student was familiar with practicing with the metronome and was agreeable to spending time playing at different markings in her practice sessions.

The next section of the lesson dealt with memorization of music. When asked to describe her procedure for memorizing, the student said that she played the piece over and over until she could play it by memory. She stated that was one of the reasons she only worked on one piece at a time for the whole school year was because it took that long to really get the piece memorized solidly. The researcher suggested that the student use her knowledge of music theory to aid in memorization by analyzing the music. The student showed confidence when asked to analyze the first section of the piece. It was evident at this time that the student was more at ease with the researcher. She enjoyed being able to determine the chordal analysis.

Following some work on the Classical period piece, the student set a goal of playing to the repeat sign by memory for the following session. This time there was no suggestion that the goal be set by the researcher.

The remainder of the session was spent discussing the musical style and characteristics of the Romantic period. The student was able to list several aspects that related to the period. She mentioned a melodic line that usually had an accompaniment in the other hand, use of pedal, more long phrases, more contrast in dynamics and more

opportunity for playing with expression. She related the period to the Mendelssohn piece she had played during the last year. This afforded a good observation of critical thinking as the student was able to see the application of thinking skills to her previously acquired knowledge.

The session concluded with an explanation of the assignment for the following week. The session included a much more balanced division of dialogue between the researcher and student. The fact that the student had prior knowledge of both theory and aspects of style of the Romantic period gave her confidence to initiate comments and enter into discussion much more readily. The researcher was able to determine that there was evidence of thinking by the student because of her comments and answers to questions, especially as she related present activities to prior knowledge and performance. As before, the student asked no questions. As the session concluded, the researcher explained the assignment for the following week and asked the student to expand on her comments in the weekly practice record.

Session Four

Since most of the questions about the Romantic period had been answered during the discussion in the previous session, the first part of the fourth session was spent on a brief overview of the characteristics of the period. The student related that she was unable to define "character piece." She indicated that she had not really known how to

research the term. The researcher presented several examples and asked the student to solve the problem through a correlation between the works. The student determined that character pieces were "about something." When asked to explain this further, she compared the titles of the examples to the titles of the Baroque and Classical works that she stated were usually dance forms without descriptive titles. Discussion followed with more comparison of examples of music provided by the researcher.

The terms from the weekly written assignment were correctly defined. The student related she knew almost all the terms without having to look up the definitions. The researcher provided examples of music that incorporated the terms to demonstrate their meanings. The student said she remembered the meanings easily because of her association of them with her instrumental ensemble playing.

The Scarlatti sonata was played. The student said that she had decided to use the piece as one of the memorized pieces for the jury exam. The piece was well played and although under tempo, was played with good articulation and in the correct style of the Baroque period. The student stated that she found memorizing keyboard music more difficult than violin music. The researcher asked her to explain why she thought this was so. The student replied that the violin had only one line of notes, and that keyboard music had many more to remember. The researcher suggested short segments for initial memorization. Different ways to aid memorization were discussed

and suggested by the researcher. The student decided on three measures for memorization for the next session.

The Beethoven piece was played next in its entirety and very slowly. The student indicated frustration each time that she made a mistake. She did not want to keep going but rather wanted to begin again each time she made a mistake. When asked by the researcher if that was the way she practiced, she answered that it was. She again reiterated she was a perfectionist and didn't like to make mistakes. This led to another discussion on practicing. The student said that she did not like to keep a practice journal because it took too much time, and she just wanted to concentrate on learning the notes. She said that she really couldn't concentrate on what she was doing if she had to stop and write down what she was thinking.

The first two sections of the newly practiced Romantic period piece, *Nocturne in G minor*, Op. 37, No. 1 by Chopin, were played next. It was evident that this piece would be learned more easily than the Baroque and Classical pieces. The student said that this music was from the period she related to the best, because it had more meaning for her. She related she also preferred playing the music of this period on the violin because she could express it better, especially because she could use vibrato and long bows.

The session concluded with the explanation of the assignment for the following week. The student asked no questions but did enter into discussion much more freely. She was more relaxed and showed

more confidence than initially. The talking during the lesson continued to be done mostly by the researcher in the explanation and presentation of information. Evidence that the student was thinking was noticed in relating the comparisons made between her violin and piano playing. Comments concerning the comparison between the musical periods and discussion of her practicing and memorization patterns also revealed examples of thinking. At the conclusion of the session the researcher gave the student the piece to be edited with an explanation of what was expected from the assignment.

Session Five

The fifth session began with a comparison of the edited piece of the student with the printed version. The two were very similar which pleased the subject. There was only one difference in a dynamic marking. The student had marked a measure with *pp* and the printed score had *mp*. The printed score also had a crescendo and decrescendo marking that the student had not marked. The researcher asked the student to elaborate on the reasons for her decisions for the markings, and there was good evidence of thought in the answers given. The student talked about the direction of line of the melody, the cadences, the repetition of phrases and the harmonic changes. This proved to be a very good exercise in applying thinking to problem solving.

The Chopin Nocturne was played next. The student chose to practice the piece in its entirety during the previous week. Although played very slowly, the performance was musical and expressive. The student related that she enjoyed practicing the Nocturne more than the Scarlatti and Beethoven pieces. When asked if she practiced it more than the others she replied, "Probably."

The researcher asked the student to play the Baroque piece by memory with the right hand only. Although this had been suggested by the researcher as a way to practice memorizing, the student had not tried to do this. After a few attempts, she was able to play the first half of the piece. The researcher asked the student to work on memorizing each hand separately for the next week. The student was asked to decide why that would be a good way to memorize. After a brief pause, she replied that would be a good way to test the security of the memorization.

The researcher provided several twentieth-century pieces for discussion of characteristics of that period. The student said she was well acquainted with some twentieth-century works through orchestra performances. She had also completed two major works of that period in her violin study. She was able to suggest several aspects relating to twentieth-century music. She expressed enjoyment in working on music of the period and thought she would like to select a piece by Bartok to play.

The session concluded with the student's playing and working on the Beethoven piece. This work progressed more slowly. Although played with accuracy of notes, it was played very methodically with no indication of enthusiasm. The researcher suggested that the student listen for a more horizontal melodic line rather than thinking so much vertically. When asked if she knew what the researcher meant by that suggestion, the student made a good explanation indicating her understanding. She again referred to long, slurred bowing in violin playing as opposed to short down bows. The weekly assignment sheet was given along with an explanation of the expectations for the next session.

Although there had been no questioning by the student to date, there had been good discussions and evidence that critical thinking was taking place. The student had expressed opinions, made good explanations for decisions concerning comparison of the periods of music, and had demonstrated understanding of performance practices in the continued improvement of her playing of the assigned repertoire.

Session Six

The major portion of the sixth session was spent working on the three assigned pieces. The student had memorized the Scarlatti piece and played it very well. The piece was securely learned and played with confidence. More time was spent on the other two pieces. The

Nocturne was very close to performance level. A goal was set by the student for completion of the Beethoven piece for the next session. This work had improved considerably from the previous week. The student related that practicing it hands separately had helped a lot.

The student selected the *Rumanian Folk Dances,* Sz 56 by Bela Bartok to study as the twentieth-century work. She said she knew that she could not complete them all in the remainder of the semester, but wanted to start them because she had played them in the orchestra and really liked them. She had much to say about the dances from her previous knowledge acquired from playing them on her violin. Specific aspects of twentieth-century music were discussed in reference to Bartok and additional music of other composers of the period. This part of the discussion was initiated mostly by the researcher, although the student answered questions readily and was able to contribute knowledgeable comments. Although the student asked no questions, she contributed much to the discussion throughout the session. Her comments displayed good thought.

As with the student in the first case study, the researcher elected to omit the written paper that was to be the weekly assignment for the following week. This decision was based on time constraints and to allow the student to concentrate more on practicing the assigned repertoire as well as to focus more on the remaining listening and observing activities. The student was instructed to concentrate on practicing the repertoire for the next session.

Session Seven

The seventh session was very productive in the performance of the assigned repertoire. The student related that she felt she had accomplished more than she thought possible in the length of time that had transpired in the semester. The first three assigned pieces were played with confidence and accuracy. The first three Bartok dances were played through correctly at a slow tempo. The student stated that she really liked the work and enjoyed practicing it. When asked by the researcher what appealed to her about the piece, she replied that it somehow made sense to her. She said that she also liked the fact it was not predictable. When asked what she meant by this, she replied that in the Baroque period, the composers always seemed to have a certain formula that they followed. She said the music was structured according to a set plan, but twentieth-century music was always changing.

The student listened to the taped examples of repertoire to identify the periods and possible composers. The researcher had recorded excerpts of keyboard music from the four periods in random order to be used for a listening test. The student correctly identified the periods and made good suggestions for possible composers of each example. Her short answer comments indicated her understanding of what to listen for in identifying the examples. She stated that she felt

she had learned much that would help her in subsequent listening. She had already noticed that she was listening more carefully for stylistic aspects in the music she played in instrumental ensembles. These comments were initiated by the student without prompting from the researcher.

Although the student had asked no questions to date, the extent of her contribution to dialogue between herself and the researcher had increased a great deal. The researcher felt that there had been good evidence that opportunity for questioning and thinking has been a part of each session. Evidence of this was the initiation of conversation on the part of the student without prompting from the researcher. Additionally, the student was now answering questions with full details and explanations rather than with one or two word answers as was the case at the beginning of the semester.

The session concluded with an explanation of the assignment that included a written observation of the video of the session. The video and assignment sheet were given to the student as she left.

Session Eight

The eighth session began with a discussion of the written comments the student had recorded from viewing the video from the previous session. The comments showed good insights and careful thinking by the student. Self criticism as well as positive assessments

of her playing were noted. The student commented on the value of seeing herself during the session's activities. Following are excerpts from her written comments that illustrate her thinking process:

> I need to make sure my wrists don't bounce up and down so much. I need to let my elbows lead to allow for more flowing movement. My trills were clean and clear in the Scarlatti as well as the sixteenth note passages. The piece could use more dynamics though. The teacher's comments really helped on style. I'm very frustrated with the Beethoven. It's not as good as I want it to be. The teacher's suggestion for staccato practice technique to fix finger problems really helped. I could really see the way it helped my playing.

The student played the piece that she had selected to learn on her own, *Papillon* from *Expressions,* Op. 81 by Tcherpnin. She said she first sight-read the piece all the way through. She then played each hand separately throughout. Next she worked hands together in two-measure segments. She added two measures hands together at each subsequent practice. When asked why she chose this way to practice, she replied that she could perfect small parts of the piece at each practice. She knew that when she finished the whole piece it would then be perfectly learned. When asked how this way of practicing differed from the practicing she did in her pre-college study, she replied that she concentrated more because she had less time to learn the piece and because she had other pieces to practice too. The student related

that she had selected a piece that she could learn easily in a short amount of time. She commented that was the first time she had worked on any repertoire without input from a teacher. She found the experience to be helpful because she realized she could rely on her own knowledge.

The researcher was very pleased with the way the piece was played. The student had obviously analyzed the work accurately with careful attention to all the details in the music. Since the piece had been assigned to be learned in two weeks, the student had wisely selected a work that she could learn to perfection in that length of time. The purpose of the assignment was to demonstrate independence of learning, and the student accomplished this very well.

The lesson concluded with an explanation of the opinion paper that would be collected at the next session. The researcher suggested that the student continue to work for performance level on the four pieces in her repertoire.

The session revealed evidence of critical thinking in the student's comments from the video viewing as well as her comments concerning her practicing procedure of the piece learned on her own. Of particular note was her relating the value of the experience of being able to rely on her own knowledge to learn a piece. Although the student asked no questions, her contributions to the discussion resulted in at least half of the total talking during the session.

Session Nine

The ninth session concluded the scheduled activities in the workbook. The session was spent working on the assigned repertoire as well as some technical exercises that had been included in the weekly assignments. The two selections to be played for the jury exam at the end of the semester were recorded. The student made critical and constructive comments while listening to the recording of the pieces. She commented that she felt the Scarlatti piece was still not played the way she would like to hear it played. She said it did not "sparkle enough" The researcher made some suggestions for her to consider in the remaining two weeks before the jury exam. The student was pleased with her playing of the Nocturne. She said she thought it sounded very expressive.

The student's opinion paper was collected by the researcher. The student observed that she had found the semester's work to be less "scary" than she had first feared. She stated that she thought the semester had helped her become more self reliant, although she still would like to have more input from the teacher.

CHAPTER FIVE

CASE STUDY THREE: ADVANCED-LEVEL STUDENT

Chapter Five contains a profile of the advanced-level student and the researcher's written accounts made from the videos of the weekly keyboard sessions. Included in the accounts are the comments and observations of the student. There are also excerpts from some of the written assignments of the student and the observations of the researcher regarding the participation and progress of the student.

Profile of the Student

The subject of the third case study was a freshman female music major who was considering a double emphasis in voice and piano. This young woman is very articulate, self assured and energetic. Her desire to experience all she could became evident when she joined the college community orchestra, the chamber orchestra, the jazz band, the freshman choral ensemble, handbell choir, chapel choir, and a social sorority. She related she had always driven herself to be an achiever and was happiest when she was busy. The idea of participating in the dissertation project appealed to her as another challenge and experience.

The student questionnaire indicated that she had studied piano for twelve or thirteen years, beginning study during kindergarten. She had worked with six different teachers during that time. Her lessons were thirty to forty-five minutes in length. She answered that her teachers did most of the talking during the lessons, and her opinions in selection of repertoire, practicing suggestions or interpretation of repertoire were never asked. In answering the question about keeping a practice record, she related that one teacher required a practice record so "my teacher could yell at me for not doing my scales!"

No listening assignments were included although basic theory written assignments were a part of some of her lessons. She also noted that her lessons contained no discussions concerning characteristics of musical historical periods, composer information, forms of music or definitions of terms.

After some discussion with the student during the introductory session it was evident that her previous study had consisted of simply playing and correcting repertoire at her lessons. Although her level of playing was advanced intermediate, her knowledge of many aspects of music was lacking.

Weekly Session Account

Session One

The first session centered on discussing what the semester would entail. In contrast to the second student, this student did a lot of talking. It was an easy task to engage her in conversation about her desire to "learn a lot about everything because I really want to do well in music."

A great deal of the discussion concerned practicing. The student related that her practice procedure was to keep playing through a piece until she learned it. She said that none of her teachers ever talked with her about how to practice. They only mentioned how long she should practice each day. She suggested that she was a fast learner who learned her pieces quickly.

The session outline was followed. An examination of keyboard works to determine the periods of music brought guesses. This part of the session consisted almost entirely of talking by the researcher. The discussion of the characteristics of the Baroque and Classical periods was definitely one-sided with no input from the student. The student showed a great deal of interest in analyzing various aspects of the music. No questions were asked by the student although she readily answered questions asked by the researcher. The lesson time was spent in an equal amount of talking by the student and the researcher.

The discussion about how to best practice the repertoire that would be assigned elicited the most comments from the student. When studying the examples of repertoire from the Baroque and Classical periods provided by the researcher, she was very quick to locate the most difficult sections and provided good reasons for her decisions. The weekly assignment was explained, and the student commented as the session ended that she was eager to begin working on the repertoire and start the actual semester assignments.

Session Two

The session began with a look at the written assignment completed during the week. The assignment was very thorough as the subject had a detailed account of her analysis of how to practice the two works she had selected to study, *Allegro* from Suite No. 7 by Handel and *Rondo*, Op. 51, No. 1 by Beethoven. Although the suggestion from the researcher had been to practice the pieces in sections, the student related that after she did that for a while she "had to go ahead and play through the whole thing" because that was the way she was accustomed to doing.

The comparison of pieces from the Baroque and Classical periods surveyed during the session was accomplished with quick insights by the student. She was able to quickly identify contrasting characteristics. She had no hesitation in answering questions posed to her. There was

a good amount of dialogue although the questioning was done solely by the researcher.

Her reasons for selecting the two pieces to be studied illustrated good thought. The Baroque piece was selected because the tempo and rhythm looked challenging to her. The Classical piece was selected because there was a lot of left hand movement, and she wanted to improve her left hand control. She said that she knew the two pieces were not as difficult as some that would require a lot more practicing, but she wanted to learn how to practice correctly. She said that even though she had played music that looked more difficult, she had not always played the pieces well and most of the time the playing was "sloppy."

One disappointing aspect of the assignment was the critique written of the concert by pianist, Arnaldo Cohen. The critique illustrated the student's lack of musical sophistication as well as her lack of knowledge of what to listen for in musical performances. Following is her complete critique:

> I believe Arnaldo Cohen could have chosen a wider repertoire. The first half of his concert was all Baroque and the other half was by one Romantic composer. The only impressive aspect of the evening was the difficulty of the literature. Mr. Cohen seemed rather detached from the music except for playing the right notes and rhythms. Although he played dynamically correct, his performance lacked emotion.

The practice journal provided very little insight into the student's thoughts. Comments were very brief and offered no real indication that any thought had been given as to how she practiced. It was merely an account of what had been practiced and for how long. Examples of her comments follow:

> Practiced the Rondo-left hand is uneven. Played the Handel twice. Worked on the first part of the Rondo-scale runs are easy with correct fingering. Played the Handel all the way through two times.

Discussion of what to think about when practicing concluded the session. The student asked four questions during the session. The talking was evenly balanced during the session between the student and the researcher. The student initiated comments and observations and gave good evidence of thinking in her observations. Her verbal comments were detailed unlike her short written ones. She commented that she was a good sight-reader and realized that she had relied on that ability to "get by" when playing some of her repertoire.

Session Three

The first minutes of this session dealt with the written observations that the student had made after listening to the tape recording of Baroque and Classical selections. The student observed that she heard more similarities than differences. She said that she

found it difficult to really concentrate when listening because she was accustomed to just "hearing music without really paying attention to it." She related that when she played the stringed bass in the orchestra and the chamber orchestra, she just concentrated on getting her part right without really listening to what the other instruments were doing. She asked for suggestions from the researcher for "doing a better job of getting more involved besides the notes." The researcher suggested that she take more time to study the music and play small sections rather than trying to play the whole piece immediately. Another suggestion was to mentally play the music before actually playing the notes. The discussion that followed centered on a review of the characteristics of the Baroque and Classical periods. The discussion was equally divided between the student and the researcher. The video of the session recorded that the only question asked by the student was for suggestions for what she should do, besides just learning the notes, when learning new music.

The student was eager to tape record her playing of the two pieces that she was practicing. Unlike most students, the fact that the playing was being taped did not in any way intimidate her. Although the pieces were very new, fine progress had already been made. The memorization assignment was discussed. The student related that memorization was not easy for her. When asked to try to diagnose the reason, she replied that she just couldn't decide why she had difficulty. This led to a good discussion on trying different approaches during the

next week to memorize sections of each piece. The researcher suggested that the subject might be trying to learn the pieces too quickly without really thinking about the procedure of learning. This piqued the interest of the student. She indicated she would try different approaches during the next week. She liked the idea of memorizing just one section of the piece and selected a section on the last page of the piece to memorize first. The remainder of the session was spent with a short discussion of Romantic period characteristics. The weekly assignment sheet was given to the subject. Because the subject is a very bright student and a very quick learner, the workbook activities were on schedule at this point.

Session Four

The first comment made by the student at this session was that she did not like keeping a practice journal because it took too much time and she would get "into the music" and forget to write again. This comment was made as the student entered and sat down at the piano. It was evident that the student was not in a good frame of mind. The researcher suggested she continue to try to find some value in the journal keeping and do more recording of her thoughts about what she did rather than just record her practice times and procedure. The student agreed but not enthusiastically. She stated she just liked to spend the practice time working on the notes and rhythms. This led to

a discussion of learning procedure. The student was feeling the pressure of involvement in so many aspects of college life. It was evident that she was over committed, and this caused her to have a feeling of frustration. She was very apologetic for the little amount of practice time recorded during the previous week. The practice journal was very sketchy, and the memorization goals set by her had not been met. The musical terms listed on the weekly assignment had been defined, and the next part of the session was spent discussing the definitions and applying their meaning to repertoire selected by the researcher.

The remainder of the lesson was spent listening to the Baroque and Classical pieces being studied. This was a frustrating activity for the student, because she felt she was playing very poorly. She asked if she could wait to play the pieces at the next session after she had practiced more. The session was frustrating for both the student and the researcher. No real indication of progress had been made on the repertoire. No questions were asked by the student. The major portion of discussion was done by the researcher. The comments by the student were in the form of complaints of lack of time to practice and do her class work. The one productive aspect of the session involved the discussion of the musical terms that the student had correctly identified. The student related that she had known all but two of the terms because she had learned their meanings in choral and instrumental ensembles in high school.

Session Five

It was evident the student was in a different frame of mind as she entered the studio for this session. Her first comment was that she had "gotten her head on straight" and had sat down and worked out a schedule to follow. She said she was ready to play her pieces this week. In addition, she had completed the weekly assignments.

The session began with a discussion of the Romantic period piece, Schubert's *Impromptu in A-flat Major*, Op. 142 No. 2, that she had selected from the group of pieces given to her the previous week. The dialogue that followed included the comparison of her edited Romantic period piece with the printed copy. The student's copy was very similar to the composer's markings. Her reasons for her decisions showed good thinking and insight as she talked about the movement of the melodic lines as well as suggesting places of rest and release of tension within the music. She related that this was the first time she had thought about interpreting music apart from just following the printed expression markings in the music, although she admitted, "a lot of times I play the music the way it feels right to me."

Following this segment of the session, the Baroque and Classical pieces were played and tape recorded. The student stated that she realized she related to the Romantic period best because she could "do more with music from that period." She felt that her playing was too

mechanical in the pieces from the Baroque and Classical periods. When asked by he researcher why she thought this was so, she replied she thought music from those two periods always had a very rigidly structured sound without much room for expression. She stated that the discussion on comparison of the musical periods had helped her to recognize one period from another more easily.

The next segment of the lesson consisted of listening to the recording of the student's playing. The researcher asked for suggestions that would aid the subject in considering more opportunities for interpretation in the two pieces. The student decided that she would try to approach the pieces in a different frame of mind. She stated that she would see if she could find more of a melody to "hook on to." She said that as long as she could feel the music was going somewhere with a melody, it made more sense to her. She thought that she could now do this with the Beethoven, but the Handel piece still was "not there yet."

A goal was set by the student to play the Romantic period piece for the next session. Memorization was discussed for the assigned works. The student stated that she knew memorization of the Romantic piece would come more easily for her than either the Baroque or Classical pieces. When questioned why she thought this, she replied she could "see the melody in her head." She said that Baroque music seemed to be non-stop note action and that was hard for

her to keep focused in her mind. She felt she was relying on playing more by feel than by thinking.

Very little time was left for a discussion of musical characteristics of the twentieth-century period. The researcher quickly explained some of the innovative techniques found in the music of the period. The student suggested some things she had noticed from orchestral music that she had played in high school. The researcher suggested beginning the next period with a discussion of the twentieth-century characteristics that the student would observe from listening to the period tape during the coming week. The "on your own" piece assignment was explained at the conclusion of the session.

Discussion was easy with this student. She was not afraid to state opinions. Although she asked no questions at the session, she volunteered comments and observations very easily. In this session, as well as in most others preceding it, the dialogue was equally divided between the student and researcher, although the student's contribution was in the form of opinions and the researcher's tended to be explanatory and questioning. Through the questioning there was much opportunity to allow the student to think. It was evident to the researcher that the student was having to adapt to a more thorough way of learning the repertoire. Even though her practice journal comments continued to be sketchy and not informative concerning her thought processes during her practice sessions, the performance of the

assigned repertoire indicated she was trying to approach her practicing in a more thorough manner.

Session Six

As decided during the previous session, this session began with a discussion of the recorded examples of twentieth-century music the student had listened to as part of the weekly assignment. A good discussion was balanced equally between the student and researcher. The student related that she found music of this period to be easily identified because "you can always hear something that doesn't sound normal." When asked what she meant by normal, she replied she meant unexpected. This provided a way to compare the four periods that she was studying. The discussion was a good application of critical thinking to the problem at hand. The student said that she could hear expected harmonic sounds in music of the Baroque and Classical periods, but that she could hear "far out" harmony in modern music. She said some of the orchestral music that she had played used really strange combinations of instruments. She stated that she thought a lot of twentieth-century music sounded like it did for effect and that the composers tried to see how different they could be from the earlier periods.

Following the discussion of the comparison of the musical periods, the student played sections of the twentieth-century pieces she

had selected for in-depth study. She selected Nos. One and Six of *Preludes* , Op. 6 by Muczynski and also decided to work on *Petit Rondo* from *Villageoises* by Poulenc. This was the first hearing, and the pieces were played in sections very slowly. The student commented that she had to work hard to do slow practicing. She related her usual way was to try to learn a piece all at once because she was a good sight reader and liked to play straight through pieces. When reminded by the researcher that she had made this observation during an earlier session, she said that at least now she was beginning to think about what she was doing. Thinking about what she was doing was a new experience for her.

The remainder of the session was spent working on the other three repertoire pieces. An interesting comment was made by the student at the conclusion of the session. She related that she felt that sometimes she did her best practicing when she didn't concentrate so much on what she was doing. What she had noticed, however, was that when she didn't concentrate she had to "start over again the next time." This indicated that although she still had a tendency to resist the notion of slow and thoughtful practice, she did acknowledge that when she failed to concentrate, her work was less productive. No questions were asked by the student at this session.

Session Seven

The decision to omit the assignment of the written paper summarizing the characteristics of the four musical periods applied to this student as well as the previous two for the same reasons as previously stated.

The major portion of the seventh session consisted of working on the four repertoire pieces. The Baroque and Romantic pieces were performed by memory. The student related that she felt secure with the memory and found that memorizing by analyzing the music had been very helpful. The remaining pieces were played by the student with discussion following each piece. The Rondo showed much improvement and, although not up to tempo, was accurately played with a very steady and good articulation. The *Diversions* and the *Petit Rondo* showed good progress. The student learned these pieces quickly. Despite her earlier comments indicating she preferred Romantic period music, the student related that she was really enjoying playing these pieces.

The last segment of the session included the ungraded listening test of the excerpts of keyboard music from the four historical periods. The student was able to place all the examples in the correct musical period. She made good suggestions as to possible composers. Her reasons for her answers showed good application of knowledge gained through the discussions and activities of the semester. Although her

written observations were short, they listed such aspects as melodic line evident, Alberti bass line, constant repetition of short phrases, very legato playing, pedal heard, clashing harmony, and jumping all over the keyboard.

As with all previous sessions, this seventh session was video-taped. The student was given the video to view and return to the next session with a written account of her observations.

There was not as much discussion in this session as in previous sessions. The playing of the repertoire took a major portion of the session. Although the student asked no questions, she did more talking than the researcher in relating her explanations of her written observations of the listening test. Application of good thinking skills was apparent in the discussion.

Session Eight

This session began with the playing of *Invitation* by Sugar Rezso, the piece the student had selected to learn on her own. A discussion followed during which the subject related her reasons for the choice and the procedures that she had used in learning the work. She said that she really worked to change her practice habits by analyzing her assigned repertoire piece. She related that she played through the piece only once just to hear it then took time to work on it very methodically and carefully. She said she was able to play it well at the end of a

week's time. This assignment was specifically intended to illustrate the application of thinking to a given task. The results of the assignment were very gratifying, more in the context of the explanations by the student 's description of how she had learned the work rather than in the actual performance of the piece itself. When asked by the researcher if she thought she could now teach the piece to another student confidently, she replied that she could.

The repertoire pieces were performed and discussed. Following the discussion that included suggestions for continued improvement of the works, the written account of the student's viewing was discussed. Following are excerpts from the written account:

> When I don't know the music I repeat the same notes over and over. I changed the way I played the song a lot from the way I used to play. My dotted eight notes were like even notes. When I repeat the notes over and over I lose time and the rhythm. It really helps when we talk about how to work on my pieces. I thought I was playing with a lot more expression than the video showed. I wish I could watch a video of my playing more because it really showed me some things I could do better. My posture sure wasn't good at times!

The remainder of the session was spent examining the examples of keyboard music that had the titles and names of composers deleted. The student very quickly identified each piece correctly in the right musical period. Her reasons illustrated an understanding of the

characteristics of each period discussed at previous sessions during the semester. Although matching composers with musical periods obviously involved memorization of facts, the student was able to combine her knowledge with thinking skills in supplying reasons for her answers. As in the listening tests, the student was able to list such stylistic aspects of the music as Alberti bass, melodic line, pedaling, constant repetition of short phrases, much change in dynamics, legato lines, and use of wide range of the keyboard.

No questions were asked by the student. As in the previous session, the video showed the major portion of talking was done by the student. The researcher asked questions that led to detailed explanations and observations by the student.

The assignment of the opinion paper to be collected at the next session was explained by the researcher. The student was told to continue perfecting the repertoire in preparation for the jury exam at the end of the semester.

Session Nine

The ninth session was the final session of the semester that included the workbook activities. The assigned pieces were played and discussed. A second playing was tape-recorded for critiquing by the student. The student made observations concerning her playing and suggestions for improving the pieces. The suggestions were mainly

about interpretation. The student commented that she felt secure with the memory work and did not feel that she would be nervous at the jury exam. She felt the pieces had been very "solidly" learned. She added she would have liked to have had fewer pieces and a longer time to learn them. This seemed to be a contradiction. When asked what she meant by this, the student replied that she would like to work on maybe just two really big works instead of four smaller works. She said that she felt she was ready now to do repertoire that was harder, longer and more challenging because she knew how to practice better. She said she realized that in the past she had just played her pieces without really practicing them. The opinion paper was turned in as she left. No questions were asked by the student at this session.

In addition to the evident continued progress on the repertoire, the session videos showed there had been good opportunity to engage the student in questioning and thinking. The comments of the student, the good work on the listening test and the improvement in the ability to place compositions in stylistic periods indicated the weekly activities had enhanced the learning process as well as (as shown by comparing the student's work with what she had done in preceding weeks) substantially improved her performance.

CHAPTER SIX

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

Summary

The purpose of the study was to determine the effectiveness of specific activities in music history and music theory on raising selected college freshmen students' skills in thinking critically about:

a. The relationship of the knowledge of music history and music theory to developing the critical thinking skills necessary for effective keyboard performance.
b. Personal growth and confidence as a performer.

The researcher conducted case studies with three college freshmen music majors during their first semester of college keyboard study at William Jewell College in Liberty, Missouri during the fall semester of 1996.

The students used a student workbook designed by the researcher based on research on critical thinking literature and from her college keyboard teaching experience. The activities in the workbook were designed to follow the six stages of Bloom's taxonomy of objectives for the cognitive domain: knowledge, comprehension, application, analysis, synthesis and evaluation.

The workbook covered a period of nine weeks and was designed to follow a schedule of activities to be completed during each lesson as well as outside activities to be completed during the week by the student. The workbook activities were the same for all three students although the repertoire was assigned to fit each student's playing level (early-intermediate, late-intermediate and advanced).

The researcher video-taped every session. A written account by the researcher of the weekly session was filed each week in each student's notebook along with the written assignments completed by the student. The video accounts and the written work of the students contributed to the assessment of the success of the research project.

The activities included in the workbook were designed to provide opportunities for the student to compare the stylistic aspects of the four periods of music through looking at examples of keyboard works and listening to taped examples of music from the periods. Included also were activities to critique a performance of a keyboard artist as well of the student's own performances, editing of an untitled keyboard work for decisions for interpretation, and the preparation by the student of a piece learned without outside help. Each student viewed the video of the fifth session and wrote an account of her observations from the viewing. This account was filed in the student's folder. At the conclusion of the nine weeks, each student wrote an opinion paper evaluating the course of study. The researcher

considered all the data compiled in assessing the success of the research project.

To assist in determining how the written assignments of the students demonstrated development of thinking processes in critiquing musical performance, the researcher applied the design of the SOLO taxonomy (Biggs and Collis, 1982). The taxonomy was used in a study by DeTurk (1988) to rate students' thinking by ranking their written essays according to five categories representing increasingly sophisticated levels of critical thinking:

1. Prestructural--no structured learning of the subject.
2. Unistructural--a single lower-level concept presented.
3. Multistructural--several not well-defined concepts of knowledge presented.
4. Relational--a group of higher level concepts of knowledge are present that allow more narrowly defined statements.
5. Extended abstract--combining lower and higher-level concepts to form a cohesive presentation of related aspects of knowledge, i. e. the layering of acquired knowledge to reach conclusions.

The researcher elected to use the case study approach for the design of the study. The case study approach is a qualitative rather than a quantitative one. The obligation exists for one to be honest and candid in providing a clear presentation of one's findings. The question might arise how results can be determined to have validity.

Although there is the opportunity in both quantitative and qualitative research for dishonesty in presenting data, the qualitative approach has the advantage of the literary or narrative style of communication. The narrative or literary approach can be readable, descriptive and graphic while at the same time can be structured, precise and controlled. The narrative approach allows the researcher to assume the role of a novelist complete with plot, background and characters.

The researcher of this project elected to use the narrative and descriptive forms of reporting the results of the three case studies conducted in the research. The researcher was able to ground the observations and concepts in the setting in which she worked. The data collected through observation permitted the researcher to develop a basis for assumptions and generalizations. In the college keyboard studio the researcher was able to be an observer and to record the actions of the students engaged in the process of week by week application of the workbook activities. There was the opportunity to obtain information over a period of time permitting a holistic study allowing theoretical generalizations that can be useful research for subsequent investigations.

There was ample opportunity to observe the development of interaction between the students and the researcher. By using three students engaged in the same activities there was opportunity for comparison of responses to and completion of the various assignments in the designed workbook. In addition to discovering the

keyboard proficiency of each of the three students, the researcher was able to note the effects personalities and social and academic stress had on the students' responses to the weekly lessons and assignments.

Factors of the study's design examined included: (1) the setting of the experiment, (2) the number of participants, (3) the experimental design tool, (4) the procedure of investigation. (5) the observation and recording of the study and (6) the conclusions drawn from the results.

The written observations of the weekly sessions of each student were compiled and analyzed by the researcher at the conclusion of the nine weeks. Concerns examined included amount of talking between the researcher and the student, interest or lack of interest on the part of the student for the different types of activities in the workbook, indications of independent thinking by the student, effectiveness of the practice record/journal, evidence of improvement of playing skills of the student, evidence of trust by the student for the researcher, evidence of application of knowledge gained by the student to subsequent musical problems, and assessment of the number of activities and the amount of time allowed for their coverage and completion.

The researcher's written observations of the weekly sessions were evaluated for each student independently and also compared with those of the others. Certain similarities were evident as well as distinct differences. Although two of the students answered that music

history information had been included in their keyboard study, in actuality all three were equal in their lack of knowledge in that area.

Conclusions

The conclusion of the researcher is that the results of the study are strong enough to support the contention that the application of music history and music theory in keyboard study can facilitate the development of beginning stages of critical thinking. The students participating in the study showed evidence of this in their weekly sessions in conversations with the researcher, their answers to questions posed about the periods of music history, their application of knowledge acquired to problems at hand, in their written comments in the critiques of the attended concert, the viewing of their lesson videos, their listening tests and their opinion papers. The findings were significant enough to substantiate the researcher's thesis that by including some study of music history and music theory in keyboard study, the student could apply the knowledge gained to promote independent thinking.

There was good evidence that the students benefited from the study in their personal growth and confidence as performers. The different activities experienced in the study gave them opportunities to express themselves both in dialogue and in written assignments. The

confidence they gained as a result carried over into their playing. This was especially noticeable in the two students who were initially shy and hesitant. All three students performed their repertoire pieces well and played with confidence. The researcher was able to observe the pleasure the students experienced from their good performances.

The conclusions were reached after taking into account the following aspects of the study: the role of the SOLO Taxonomy, the amount of talking between the student and the researcher, interest or lack of interest on the part of the student in the different types of activities in the workbook, indication of independent thinking, effectiveness of the practice journal, evidence of improvement of playing skills, evidence of trust by the student for the researcher, evidence of the application of knowledge gained by the student to subsequent musical problems, assessment of the number of activities and the amount of time allowed for coverage and completion. Included also are comparisons of the work of the three students on the assigned tasks of the workbook, the roles played by the backgrounds and personalities of the students, the use of the practice journal and the video camera.

The Role of the SOLO Taxonomy. The rationale of the researcher in using the SOLO Taxonomy (Biggs and Collis, 1982) described earlier in this chapter was that as the students became more knowledgeable in the stylistic and theoretical characteristics and the performance practices of the periods of music, their written

assignments would reflect increased levels of critical thinking. To an extent this proved to be true. However, the length of time of the study was not enough to adequately validate this assumption.

A first exercise to apply the taxonomy was the assignment to critique the concert of Arnaldo Cohen. The written critiques of the three students fit well into the multistructural category of the taxonomy. Several not well-unified musical concepts were presented as demonstrated by the following comments from one of the student's papers:

> His hands stayed close to the keys so the notes and octaves were always accurate. He was also a very musical player. I think his specialty was Liszt. His expression did seem somewhat manufactured though.

A second student wrote the following comments:

> I believe Arnaldo Cohen could have chosen a wider repertoire. The only impressive aspect of the evening was the difficulty of the music. Mr. Cohen seemed rather detached from the music except for playing the right notes and rhythms. Although he played dynamically correct, his performance lacked emotion.

A second critiquing of a concert of a keyboard artist is necessary to compare the critiques of that concert with the first ones to determine if the acquired knowledge of music history and theory in the keyboard study did facilitate the beginning stages of critical thinking.

Another application of the SOLO taxonomy to assist in assessing the extent of the student's thinking was used in the activities of listening to taped excerpts of keyboard music for comparison of stylistic characteristics of the historical periods of music. Comments written by the students following the initial listening assignment demonstrated little thought beyond, "Fast tempo," "Notes never stop," "A lot of detached note playing." The ungraded listening test in the seventh session reflected much greater depth of thinking in the written comments that follow:

> A definite melodic line can be heard. There were several examples of imitation. The left hand was playing an Alberti bass pattern. I could hear terraced dynamics. The music had a lot of give and take. The harmony was not traditional, cluster chords and dissonance. The tempo was really strict. The articulation was really clean. Both hands had equal voicing. The notes really jumped all over the keyboard, use of extended range of the keyboard.

As the students base knowledge increased, their writing assignments demonstrated increasingly sophisticated levels of critical thinking. Application of their increased knowledge was evident in their written comments. The enlargement of their music vocabulary enabled them to express their observations with more descriptive and complete terms.

Amount of Talking Between the Student and the Researcher.

There was ample opportunity for each student to participate in the discussions during each weekly session. The activities of each session were designed to solicit the student's opinions, observations and decisions as well as to consider the student's knowledge or lack of knowledge. The assigned outside activities to be completed during the week were designed to provide opportunity for the student to engage in decision making that could lead to discussion at the weekly sessions. The results were satisfactory. Although very few questions were asked by the students during the nine weeks, all three participated willingly in the discussions at the weekly sessions. In most instances the researcher initiated dialogue through questioning, presentation and explanation of material for study. However the students did initiate conversation, especially as they begin to feel at ease in expressing their opinions and observations. As would be expected, the researcher did most of the talking in the first few sessions due to explanations, presentations of materials and questioning. As the semester progressed the amount of talking became more equally divided between the students and researcher. The videos of the sessions illustrate the fact that had the researcher not presented opportunity for the student to talk through much questioning of the student, the sessions could easily have consisted of talking entirely by the researcher. It was through soliciting the student's opinions, observations and answers to assigned work that good dialogue resulted.

Interest or Lack of Interest on the Part of the Student for the Different Types of Activities in the Workbook. The activities that involved the comparison of the music of the periods proved to be well received by all three students. They were interested in gaining knowledge that would enable them to understand the music that they were learning. The listening tape and subsequent listening test proved effective and of interest to the students. The activities that were the most well received were the taping and listening of their repertoire and the viewing of the video from one session. All three expressed very positive reactions to these two activities. Less successful was the activity of the practice journal. Two of the students were very clear in their dislike of it, although the third found it to be helpful. The learning of the four repertoire pieces did not prove to be a problem despite the fear of one of the students who thought that she could not possibly learn that amount of repertoire during nine weeks. Applying specific tools for memorizing the repertoire was a good activity for all three. One of the students related that she was very confident in playing her pieces by memory because of the way she had analytically done the memorization. The critiquing of the keyboard concert was not completely successful or satisfactory due to the lack of knowledge of the students concerning what to listen for and how to write their observations. The successful activities of editing the unmarked piece and learning the piece independently illustrated good application of

knowledge gained in the study of stylistic aspects of the periods of music.

Indication of Independent Thinking. The videos of the weekly sessions gave good evidence of independent thinking taking place with all three students. The amount of dialogue between the student and researcher documented that the students used thinking and reasoning beyond simply giving expected and accurate answers to questions asked by the researcher. Of more importance is the documentation of opinions and observations initiated by the students. Four areas that most clearly present proof of independent thinking include the reasons given by the students to support decisions for placing repertoire examined and listened to into correct historical periods, the written observations following the viewing of a session video, comments made concerning their individual learning of the assigned repertoire and observations made in the evaluation paper at the conclusion of the nine weeks.

Effectiveness of the Practice Journal. This aspect of the study proved to be the least successful and most disappointing. Two of the students used the journal only minimally. Both expressed it to be a bother and not helpful. Their written comments were very perfunctory and resulted in little more than recording the amount of practice time and the repertoire practiced. The third student recorded her thoughts and observations about her practicing and kept a detailed account of each practice session. She related that she found the journal

to be very helpful. Consideration has to be made concerning the life-style of the three students. The two students who resisted the journal were very involved in many music ensembles and extra-curricular activities. The third student was not. The added requirement of writing in a practice journal proved a burden to the first two students while the third student had the time to find it meaningful.

Evidence of Improvement of Playing Skills. The improvement of playing skills was evident in all three students. Each student was able to successfully perform the four assigned repertoire pieces. Although one could wonder if the three students would have learned their pieces as successfully had they not participated in the activities of the research study, they were not hampered by the addition of them. The specific attention to technique problems that were discussed as they occurred with each student helped in decisions made for better ways to practice for more satisfactory results. An observation from each student supports this conclusion. The early-intermediate level student commented that she now knew how to practice and realized that she had played music that was too difficult for her to really learn well in her previous study. The late-intermediate student commented that she really did not believe that she could learn four repertoire pieces for performance in one semester but that she was able to do so. The advanced-level student commented that before learning how to practice by really analyzing her pieces she realized that she had been just playing her pieces and not really practicing them.

A good indicator of improved playing skills was the comparison of the first recordings of the repertoire of the students with subsequent recordings at later dates. Evidence of improved playing skills, both technically and musically, was clearly heard. The videos provided proof as well.

Evidence of Trust by the Students for the Researcher. This subject area needs the least discussion. Each student was very responsive to presentations and explanations of all the activities during each session. In addition, the students responded well to all the questioning by the researcher. The videos show evidence of the good rapport that existed between the students and researcher. The fact that the students could feel free to express negative observations is a good indicator of trust felt toward the researcher.

Evidence of the Application of Knowledge Gained by the Students to Subsequent Musical Problems. This area is one that requires more assessment in the future study of each student. However, two instances offer indication that the students did make application of knowledge gained to subsequent musical problems. The late-intermediate-level student and the advanced-level student related that they were able to identify the periods of music correctly on a test in a music literature class because of the discussions in their weekly keyboard sessions. In the second instance, a teaching colleague, the flute teacher of the early-intermediate student, asked to see the workbook activities being used by the student because the student had

played a flute piece with correct articulation and phrasing before being instructed to do so by the teacher. When she asked the student how she knew what to do, the student replied that she had learned about "stylistic things" about music periods at her keyboard sessions. The student then related that she was using a practice journal to record what she did in her keyboard practicing. The flute teacher was so impressed that she asked for permission to duplicate the practice records for use in flute study.

Assessment of the Number of Activities and the Amount of Time Allowed for Coverage and Completion. An assessment of the number of activities and of the amount of time allowed for coverage and completion can be easily made. There were too many activities and not enough time to complete them all satisfactorily. It would be better to limit the study to no more than two historical periods per semester. The periods, then, could be covered over the course of a year rather than one semester. Subsequent semesters could build on this introduction. An additional suggestion would be to include only one activity at each session to allow more time for working on the assigned repertoire. These changes would not take away from the discussions or suggestions for promoting critical thinking, but rather would allow the student more in-depth coverage of subjects studied over a longer period of time. Although care was taken by the researcher to ensure that mere memorization of facts was not taking place, spreading the application of music history and theory to keyboard study over an

extended period of time would ensure a more thorough understanding with more application to subsequent music study by the student.

Comparison of the Three Students

A comparison of the three students in the areas of repertoire performance, listening tape scores, untitled piece, the "on your own" prepared piece, the opinion paper and their written observations following the video viewing follows.

Repertoire Performance. The three students completed the assigned repertoire and each memorized the two pieces for the jury examination. Although the level of difficulty varied, each student performed her assigned repertoire very well. The repertoire was accurately played with good attention to details in the music.

Listening Tapes. The comparison of the listening tape scores shows that the late-intermediate and the advanced-level students scored slightly better than the early-intermediate-level student. Both identified all the items correctly. The early-intermediate-level student had two incorrect answers. Although all three students used the same workbook activities, the two more advanced-level students had been more involved in music ensembles and, therefore, had more exposure to music of different periods. The early-intermediate-level student had participated in only one ensemble prior to college study. This fact could be a consideration in the difference in the scores.

Untitled Piece. This activity was successfully done by each of the students. The students edited the same piece. The edited pieces of the advanced-level and late-intermediate-level students differed from the printed score in only two places. The early-intermediate-level student had three different markings from the printed score.

The Independently Prepared Piece. All three students selected pieces that could be learned within a two-week period. The group of pieces provided by the researcher to be used for this activity assured this fact. The pieces were prepared well by all three. The early-intermediate-level student played the piece correctly although under tempo. The late-intermediate-level student played with good musical interpretation. The twentieth-century piece played by the advanced-level student was played up to tempo with good attention to the markings in the score.

The Opinion Paper. The opinion paper reflected the personality of each student. The early-intermediate-level student was the most reflective in her comments. She expressed her thoughts and observations easily and hers was the most lengthy paper. This was the student who wrote good comments in the practice journal. The late-intermediate student wrote the least amount, reflecting her inexperience and insecurity in expressing herself. Her comments are revealing however, as she stated that her previous teachers took a more prominent role in the preparation and refinement of her pieces. Her previous experience provided little opportunity for own input.

She stated that she had to learn to rely on herself during the nine weeks for the first time in her music study. The advanced-level student was always the one who most freely expressed herself. Her opinion paper was insightful in her comments concerning the knowledge she gained in ways to improve her practicing. Each student commented on having a better understanding of the different periods of music, composers and performance practices of the periods. Although differing from each other in the style of writing, the papers were subjective as well as objective in nature and showed evidence of careful thinking.

Viewing of One Session by the Students. The activity of viewing the video tape of a weekly session brought unanimous approval from the three students. Each had positive comments about the helpfulness of observing herself during the session. The comments were candid and written objectively. The early-intermediate-level student and the late-intermediate-level students commented on areas that they noticed needed to be improved, but also commented on aspects that they thought they did well. The advanced-level student's comments were more critical of herself. She had no positive comments of her performance of the repertoire pieces.

The Assessment of the Workbook in the Study. The use of the workbook with the three students during the nine weeks of keyboard study proved to be helpful in several areas. The students were to

acquire knowledge of the stylistic characteristics and performance practices of the periods of music through:

1. Specific activities of comparison of music surveyed in the weekly sessions.
2. Completion of outside listening assignments.

This knowledge enabled them to better understand how to interpret and perform their assigned repertoire. The activities of editing the unmarked piece and learning and performing the "on your own" piece were of value in providing the students the opportunity to analyze the preparation of a piece for performance and to make interpretive decisions. Critiquing the concert of Arnaldo Cohen was not as productive as it might have been had this activity occurred later in the semester. The students were not sophisticated in their knowledge of music and lacked writing skills to critique a musical performance at the beginning of the semester.

Because the study was undertaken during a prescribed time period, it was necessary to attempt to cover more material than is desirable in a nine-week period to determine the types of activities that would work best to show evidence of critical thinking. The researcher determined that the activities should be spread out over a longer period of study. Although the students were successful in completing the assignments, there was too much material in the workbook to cover with great depth. The results of the study convinced the researcher that while the activities of the workbook had merit and

illustrated evidence of critical thinking, the students would benefit more from participating in similar activities over extended periods of time.

The researcher recommends the following revisions for the workbook:

1. Include only one activity at each weekly session in addition to the repertoire being studied for performance. (Example: Examine three baroque keyboard works of one composer to determine recurring stylistic patterns.)

2. Assign only one outside activity to be completed by the student each week.

3. Concentrate on one period of music for six weeks of the semester to allow more time to learn about the stylistic characteristics, performance practices and composers of the period. This would allow the student to have a more thorough understanding of the period and provide more opportunity to apply the knowledge gained to the preparation and performance of the repertoire studied.

4. Divide the workbook into four sections, one for each period of music. Include the same type of activities for each period (examining scores from the period, listening to excerpts from the works of representative composers from the period, assessing the taped performances of the students playing their pieces, assigning repertoire to be learned by the student without help from the teacher, writing critiques of performances attended, and preparing an opinion paper by

the student evaluating his/her own work as well as evaluating the course of study for the semester).

5. Eliminate the practice journal. The journal did not provide information that was detailed and helpful in assessing the student's repertoire preparation and personal observations. The students disliked the task of making a written report on each practice session and considered it to be a burden as well as time consuming. Replace it with an optional form that the student can use if he/she desires.

The Role of the Background of the Student to the Study. The role of the background of each student should be considered throughout the study. Although the level of playing proficiency was a consideration, other aspects of the students' backgrounds were revealed in the profiles. These included the number of years of study, the number of teachers each student had in pre-college study, the type of repertoire learned, the type of practicing the students had been accustomed to doing, other instrumental study and participation in instrumental and choral ensembles, participation in music classes in high school, parental influence and support in music study and the degree of the student's involvement/interaction with previous keyboard teachers. The student's openness, or lack of it, could often be traced to what had occurred during previous keyboard study. If a student had never been involved in the learning process, it was difficult to change the student's role from a passive to an active learner. Such was the case with the late-intermediate-level student who had

had no previous opportunity to make decisions or to express herself during her keyboard study.

The Role of the Personality of the Student to the Study. Differences in the students' personalities proved to be a telling aspect in the course of study. Three distinct personalities resulted in three types of approaches to the study by the students. The most aggressive student, who was also the most advanced, actually did the least amount of work. Although the assignments were completed, they were done with minimum effort. The student has a very strong personality and expresses her feelings openly and willingly. Well liked by her peers, she quickly assumed a role of leadership. Because of her desire to be so involved in every aspect of college life and to participate in every music ensemble possible, the student tried to accomplish tasks quickly. The result was that the work was not always as thorough as it could be. However, the playing performance of this student was very strong. Because she had over-committed herself, her interest in keyboard study centered on learning the repertoire. Apart from the work done on stylistic aspects of the different periods, she would have been happy to simply work on learning the repertoire. It was sometimes a strain for her to discipline herself to complete what might appear to be long-term tasks. She wanted to get to the end quickly. Several times the same comment appeared in her practice journal, "Keep messing up, can't concentrate-have other things on my mind." The practice journal was not a successful tool for her. This was made

clear in her verbal comments as well as in her written comments in the opinion paper. Following are some of the comments from the opinion paper:

> These piano lessons were very different from any other lessons I've had. The most significant thing I've gained is the ability to distinguish between the periods. Subsequently, I learned what style of playing to use for each period. I have had to use practice logs before, but they never really helped me. This time was no exception. In theory, they should help to change practice habits, but mine are firmly implanted. I often see better ways of practicing, but I forget to use them. I think my piano lessons would've been less stressful if I could've concentrated on one or two songs instead of four. I suppose it's necessary for students to play four pieces because it goes hand in hand with studying the periods. Perhaps if I hadn't been in a hurry to practice all my songs, I would've taken the time to think about how I was practicing. The video was a very good idea. I don't get to see myself play very often.

The other two students were similar in personality type, both rather shy and initially hesitant to speak. The early-intermediate-level student was the first of the two to show evidence that she was benefiting from participating in the study. As the semester progressed the researcher observed a definite change in the personality of the student. As she became more confident in the relationship with the

researcher, she became animated and showed clear indication of enjoying her keyboard work. Having specific activities to complete each week satisfied her need for accomplishment. By having specifics to discuss, she became open in expressing herself. The videos showed more and more evidence of independent thinking and insightful observations from week to week. Her comments indicated good thinking application to what she was doing. This student was the only one who found the practice journal to be helpful. Her keyboard playing skills improved significantly. Although the least advanced in playing proficiency of the three, she actually did the best work. Following are some comments from her opinion paper:

> My first semester of college was an awakening experience in many ways. I learned many things about myself, and people in general. My keyboard study had a very important part in my awakening experience. I learned to discipline myself in interpretation, practice procedure, and technique. My eyes were opened. I looked at my music with a new understanding of how to approach it with organization and preciseness. I learned to detail my work, instead of just playing notes on the pages. I feel that I have learned a lot about keyboard work during this past semester. I think I have improved my understanding of "the procedures." In other words, I am able to work throughout a piece and pay close attention to detail. I can logically sort out sections of the piece and develop my own way to practice it.

In my opinion, I think that this approach of study is better than other ways I have studied in the past. I think I have learned more because I have thoroughly studied every aspect of a piece. I understand and am able to relate the composer, the time period, and the style to logically decide the best way to approach the piece. Using this method, I think that I could now learn a major work on my own because I understand the details. I know how to practice, and I know how to discipline myself to pick apart each section that requires extra work. Most likely, I could teach someone else how to learn a piece using the learning activities which I have learned. I think I would start by forcing him/her to study the different periods in keyboard music, paying attention to the contrasting styles, and the composers. Next, I would continue by introducing different musical works having the student interpret them. I would definitely recommend a practice journal. I think that it really helped me to organize my thoughts and it showed me what I needed to improve. I also think that it showed my progress that I made during the week. I think that it is usually beneficial to record my thoughts on paper because it allows me to clear my head.

Lastly, I also think that learning repertoire as I have during my first semester has helped me in my performance as well. Now that I am more familiar with the details of the periods, and the styles of keyboard music, I am able to relate the

sounds of a specific time period to the way I perform the music. Learning details has given me a confident feeling of knowing the piece thoroughly. I understand how to practice, analyze and perform basically any type of music with a confident attitude.

The benefits of using the workbook with the late-intermediate-level student did not begin to be apparent until the last three or four sessions. This student was difficult to assess. In viewing the initial videos of the sessions, the impression gained was that of very little interest on the part of the student. Although respectful, she was very quiet and spoke only when answering a question. In observing the student's interaction with her peers, it was easy to see that she was not at ease in social situations. As the semester progressed, the student became more secure in her association with her classmates due to the respect they showed for her violin performance ability. She was one of three winners in the college concerto competition. As the semester neared the end, the student had changed dramatically in her display of confidence and sociability. This change was also evident in her keyboard playing. Initially the need for perfection was detrimental to her. This need seemed to be less obvious as her confidence in herself increased. Although the researcher did most of the talking in the weekly sessions, the student did participate in the discussions when asked questions. She is a very bright student in addition to being very talented musically, and it was evident that she was capable of producing fine work. The most difficult aspect of working with her

was to try to enable her to think for herself. The practice journal was almost a disaster for her, because she simply could not express any thoughts about her practicing. Toward the end the researcher decided to omit requiring her to use the journal, although she chose to continue to write her times of practice and the pieces she practiced. At the introduction of the twentieth-century musical period there was a notable change in the student. Having played a piece from that period with success on the violin, she initiated conversation with an apparent feeling of ease. This was the turning point in the semester. She showed more interest in the remaining activities. The remaining sessions together were marked by considerably more dialogue. The student was obviously more at ease and her playing reflected this as well. Following are comments from her opinion paper:

> I think I have improved some throughout this semester. I have learned to work on more things at once, which has been hard for me because I am such a perfectionist. My practice procedure was pretty much the same as I usually do. If I have a performance pressing, I always practice that piece first because I want it to be really good. With all pieces I start out hands separately, then put them together. I also work out trouble spots with repetition. In the past, my teacher has been more prominent in my preparation of pieces as well as refinement but this semester I have had to rely more on myself. I have had to learn to think by myself more. I know I have gained knowledge

about terms in music, composers and things about the different periods of music. I also have expanded my repertoire.

Gaining an understanding of the personality of each of the students played an important part in contributing to the success of the study. Each student benefited from the structure of the study in gaining confidence through the successful completion of the activities. The two students who were initially shy and hesitant became much more secure because they were given the opportunity to think and express themselves without fear of being criticized. This was helpful in their performance of the repertoire because they were less fearful of failure. The advanced student had the opportunity to see the need to become analytical, to take more time for thoroughness rather than to try to reach quick results. This resulted in more secure and polished performance of her repertoire as well.

The Role of the Practice Journal in the Study. The practice journal did not prove to be successful. Two of the students, the late-intermediate-level and the advanced-level, considered it to be a burden and recorded little more than the amount of time practiced and the repertoire played at each practice session. The intent of the researcher was that the practice journal would be used by the students to record thoughts and observations about their practicing in addition to the amount of time and repertoire practiced. The two students did not want to take the time to do this. Both related that they were uncomfortable recording their thoughts and personal observations.

The major deterrent was the time that it took away from the actual practicing of the repertoire.

The third student, the early-intermediate-level, expressed an opposite opinion. She enjoyed recording her observations. Her comments were insightful and detailed. Although the least advanced in keyboard proficiency, she was the most diligent in completing the assignments of the workbook. This included the practice journal.

The conclusion of the researcher is that the practice journal could be helpful with students who indicate an interest in recording their thoughts and enjoy the disciplined activity of record keeping. The opinion of the researcher is that the majority of college students would not benefit from its use to any great extent. To require all students to use a practice journal could prove to be counter-productive. The decision to use a practice journal needs to be made by the teacher and student together. If neither feels it is advantageous, it should not be used.

The Role of the Video Camera in the Study. The video camera proved to be a valuable tool and very beneficial to the research project. The videos were used by the researcher to evaluate the weekly sessions enabling the observation of the interaction between the student and herself. The researcher was able to assess the students' understanding of the assignments, to determine the progress of the performance of the repertoire, to note the type of discussion at each session and to observe her own teaching. An important advantage of using the video for the

researcher was the opportunity for repeated viewing of any session to aid in documenting the various aspects being studied for the research project.

The three students found the activity of viewing a weekly session of their keyboard study to be very helpful and informative. Each student related that the video was useful in showing what she was doing well and what she needed to practice for improvement in the performance of her playing.

Although it may not be practical to suggest that every lesson be video-taped, the conclusion of the researcher is that there should be the opportunity to video-tape at least one lesson for each student during the course of each semester of study. The video offered the opportunity for assessment both by the student and the researcher and provided valuable information for each. The use of it proved to be helpful in promoting dialogue that included critical thinking on the part of the student. Although the study was conducted with keyboard students, it could be applied to the teaching of any instrument.

Recommendations for Further Study

Based on the process of conducting this study, the researcher makes the following recommendations for further study:

1. The workbook used in this study should be revised to encompass a longer period of time to determine if this affects the success of the study.

2. A similar workbook should be devised for average-age beginning piano students in independent studios and similar case studies should be undertaken.

3. A study using activities such as those suggested in the workbook should be undertaken with high school seniors involved in keyboard study. A means of comparing them with seniors involved in keyboard study who have not had such training should be devised to determine if those who used the activities were better prepared for college music study.

4. A similar study should be undertaken to test the effect of including music history and music theory in the study of voice and other instruments at the college level.

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APPENDIX A

KEYBOARD CRITICAL THINKING WORKBOOK

The Keyboard Critical Thinking Workbook is designed to include the following activities to promote critical thinking in keyboard study:

1. Composer identification
2. Identification and comparison of styles and forms of musical periods
3. Keeping records of practice procedures
4. Listening assignments
5. Assessing student's progress in assigned repertoire
6. Student's evaluation of personal musical growth

SESSION ONE

At the Lesson

1. Look at the the two keyboard works provided by the teacher. Notice the composer and dates. During which period of music history did each composer live?

_____

_____

2. Compare the characteristics of the two works above. Discuss what you observe about:
   a. Style
   b. Form

c. Articulation
d. Expression
e. Rhythm
f. Harmonization
g. Title

3. Decide the best procedure for practicing each piece during the week:

a. What appear to be the most difficult sections? Why?
b. What techniques or strategies do you think would be most beneficial to use in your practicing? Why?
c. Define the expression marks. (if any)

Weekly Assignment Number One

1. Select and begin practicing two works, one from the Baroque and one from the Classical period, from the following works provided by the teacher.

_____

_____

_____

_____

_____

2. Be ready to discuss what you have observed in the pieces you select about:
    a. Style
    b. Form
    c. Expression
    d. Articulation
    e. Rhythm
    f. Harmonization
    g. Title
3. Keep a journal of your daily practicing, noting:
    a. What you practiced.
    b. How much you practiced.
    c. How you practiced.
    d. Observations about your practicing. (Include personal observations, i.e. "I practice best in the mornings or early evenings" etc.)

4. Decide the best procedure for practicing the piece during the week. As you practice, think through the following questions:
    a. What appear to be the most difficult sections? Why?
    b. What techniques or strategies would be most beneficial to use in practicing? Why?
    c. What do the markings (tempo, expression, dynamics, articulation) mean?
5. Attend the Fine Arts concert September 18, of pianist Arnaldo Cohen. Write your personal observations of the performer, performance and repertoire. This written observation will be collected at the lesson following the concert.

SESSION TWO

At the Lesson

1. Using the two performance pieces you have selected, discuss what you observed about:
    a. Style
    b. Form
    c. Articulation
    d. Expression
    e. Rhythm
    f. Harmonization
    g. Title
2. Name at least five distinctive characteristics of the Baroque period and the Classical period that would help you identify each period as you look at scores or listen to music. Compare two additional works, one from the Baroque and one from the Classical period, (provided by the teacher at the lesson), noting the characteristics you have suggested.

3. Play the sections (or whole) of the two pieces you selected.

    Discuss Piece No. 1:
    1. Why did you select this piece?
    2. What are the main difficulties?
    3. How did you practice?
    4. How much did you practice?
    5. Did you find the amount of practicing to be sufficient to accomplish what you set as a goal? Why or why not?

6. What observations did you make about your practicing?
7. What are your goals for this next week for this piece?

4. Play sections (or whole) of Piece No. 2 and discuss in the same manner.

Weekly Assignment Number Two

1. List at least five composers from the Baroque period who wrote keyboard works. Give their country and dates. Use the resource section in the music library for your research.

2. List at least eight composers from the Classical period who wrote keyboard works. Give their country and dates.

3. Listen to the first eight keyboard selections (Section One) on the listening tape. The first four selections are from the Baroque period, the next four from the Classical period. As you listen, make a list of specific stylistic characteristics, noting similarities and differences between the two periods that would help you identify the period and possible composer.

4. As you listen, make a list of what you notice specifically about articulation and tempo in the Baroque and Classical periods. Be ready to discuss what you have observed at the next lesson.

5. Continue with your practice journal, keeping practicing records and personal observations.

SESSION THREE

At the Lesson

1. Discuss your observations from listening to the eight selections in Section One of the listening tape.
2. Discuss the list of stylistic characteristics you observed specifically that would help you identify the period and possible composer.
3. Discuss your list of characteristics of articulation and tempo in the Baroque and Classical periods.
4. Play, discuss and work on Piece No. 1. Play again and tape-record. Listen to the tape while watching the music and critique the playing. Decide on section (or whole) to be memorized for the next lesson.
5. Repeat procedure #4 with Piece No. 2.
6. Look at a work from the Romantic period. (Provided by the teacher).

   Discuss what you observe about:
   a. Style
   b. Form
   c. Articulation
   d. Expression
   e. Rhythm
   f. Harmonization
   g. Title
7. Select a piece to study and perform from the group of Romantic pieces (supplied by the teacher).

Weekly Assignment Number Three

1. Use the resource materials in the music library and be ready to answer the following questions about the Romantic period:

    a. Why is this period of music called Romantic?
    b. How can you relate this period of music to literature?
    c. What do you see in the music that offers clear indications of this period?
    d. Why are pedal markings found?
    e. How can you justify expression markings in this period and the absence of them in the Baroque and early Classical?
    f. What is a "character piece?" Find a musical example to illustrate your answer.

2. Define the following terms and indicate your understanding by demonstrating the meaning in the musical examples provided by the teacher. You may use the music dictionaries in the music library.

    a. con moto
    b. leggiero
    c. con forza
    d. perdendosi
    e. animato
    f. pesante
    g. una corde
    h. sotto voce
    i. cantabile
    n. andante
    o. spiritoso
    p. giocoso
    q. tempo di marcia
    r. maestoso
    s. scherzando
    t. allegro ma non troppo
    u. poco a poco
    v. nicht schnell

j. dolente
k. crescendo
l. vivace
m. tres corde
w. non legato
x. lento
y. allegro assai
z. espressivo

3. Continue with the practice journal. Be prepared to discuss your practice procedure for the newly assigned piece.

SESSION NUMBER FOUR

At the Lesson

1. Play Piece No. 1 and Piece No. 2.
2. Discuss how the learning procedure is operating.
3. Discuss techniques for memorizing a keyboard work. Decide on the next piece to be memorized.
4. Set goals for having pieces No. 1 and No. 2 at "performance ready" level.
5. Discuss the questions in #1 of weekly assignment #3 about Romantic period music.
6. Define the terms in #2 of weekly assignment #3 and demonstrate your understanding of the definitions in musical examples provided by the teacher.
7. Play the practiced section of the assigned Romantic piece. Discuss practice procedure used during practice time.

Weekly Assignment Number Four

1. Listen to the four pieces from the Romantic period (Section Two) on the listening tape.
2. As you listen, make a list of specific stylistic characteristics that would help you identify the period and possible composer.
3. As you listen, make a list of what you notice specifically about articulation and tempo in the Romantic period.
4. Compare these lists of characteristics of the Romantic period with the lists you made from the Section One listening tape pieces of the Baroque and Classical periods and be prepared to discuss your observations at the next lesson.
5. The Romantic period piece for this assignment has had all expression markings deleted. Edit the piece by adding markings you think the music needs. Include tempo indication, expression markings, dynamics, etc. Suggest a possible title to match the mood and content of the piece. Suggest a possible composer.
6. Continue with your practice journal.

SESSION NUMBER FIVE

At the Lesson

1. Discuss the edited Romantic period piece. Compare it with the original markings in the composer's score and discuss.
2. Discuss the stylistic observations made while listening to the Section Two (Romantic period) pieces on the listening tape.
3. Play and record pieces No. 1 and No. 2. Listen to the recording. Discuss and critique the playing.
4. Look at several 20th Century period keyboard pieces provided by the teacher. Observe and discuss characteristics of the works including:
    a. Style
    b. Form
    c. Articulation
    d. Expression
    e. Rhythm
    f. Harmonization
    g. Title
5. Observe and discuss innovative techniques in keyboard music of the 20th Century: harmonic freedom, extension of registers, polymeters, etc.

Weekly Assignment Number Five

1. Select a 20th Century period piece to practice from the pieces provided by the teacher.
2. Decide the best procedure for practicing the piece during the week. As you practice think through the following questions:
    a. What appear to be the most difficult sections? Why?
    b. What techniques or strategies would be most beneficial to use in practicing? Why?
    c. What do the markings (tempo, expression, dynamics, articulation) mean?
3. Select a piece from a group in the teacher's studio library reserved for your playing level to be learned entirely "on your own." Use the knowledge that you have attained concerning the characteristics and performance practices of the four periods to guide your study. Your piece can be from any period and should be from two to four pages in length. The finished piece will be heard for the first time by the teacher at the end of the tenth week of the semester.
4. Listen to the 20th Century keyboard selections in Section Three on the listening tape. As you listen, make a list of stylistic characteristics that would help you identify the period and possible composer of each piece.

5. As you listen, make a list of what you notice specifically about articulation and tempo in the 20th Century period. Be prepared to discuss your observations at the next lesson.
6. Continue with your practice journal.

SESSION NUMBER SIX

At the Lesson

1. Play sections or whole of the four pieces you are practicing. Discuss and work on each piece with dialogue between teacher and student.
2. Discuss stylistic characteristics of the 20th Century pieces from Section Three of the listening tape. Use the list made by the student.
3. Look at five examples of 20th Century period keyboard music (provided by the teacher) and discuss specific innovations of the period observed, specifically:
    a. use of extended range of the keyboard
    b. articulation
    c. tempo
    d. wording of expression terms
    e. changes in theoretical practices found in this period
    f. harmonic differences found in this period
    g. changes in form found in this period

Weekly Assignment Number Six

1. Write a paper summarizing the characteristics of keyboard music of the four periods we have studied during the semester. You may want to discuss the following aspects in your paper:
    a. Articulation
    b. Expression
    c. Harmonic changes
    d. Tempo
    e. Form
    f. Range of the instrument
    g. Use of the instrument

The paper will be due at the end of the ninth week.

2. Continue with your practice journal.

SESSION NUMBER SEVEN

At the Lesson

1. Play the four pieces being practiced. Discuss and work on each piece with dialogue between teacher and student.
2. Play all repertoire a second time and videotape the second playing of the repertoire.
3. Listen to a new tape prepared by the teacher of eight excerpts of keyboard repertoire from the four stylistic periods. On this ungraded listening test, identify the period and list at least three reasons for the choice. A possible composer should be suggested.

Weekly Assignment Number Seven

1. Continue perfecting pieces.
2. Complete memorization of Piece No. 1. Begin memorization on a second piece from a different period for the jury performance at the conclusion of the semester.
3. Watch the video of your performance of your pieces at your last lesson. As you watch, make notes for discussion for your next lesson. The notes will be collected at the lesson.
4. Continue with your practice journal.

SESSION EIGHT

At the Lesson

1. Perform all repertoire including one of the pieces by memory. Work for perfecting to "performance level."
2. Hear "on your own" piece and discuss reasons for choices for all aspects of the performance.
3. Examine eight examples of music provided by the teacher with the title and composer's name deleted. Determine the period, possible composer and discuss the reasons for decisions.

Weekly Assignment Number Eight

1. Write a one or two-page opinion paper evaluating your first weeks of college keyboard study including:
    a. Your assessment of your knowledge gained.
    b. Your assessment of your practice procedure.
    c. Your improvement (if you consider you have or have not).
    d. Your opinion of the use of the time involved.
    e. Your assessment of this study compared with the previous keyboard work you have done.

This essay will not reflect in any way on your grade. You might consider the following questions as you write:

a. Compared with the way you previously studied, would you want to continue this type of study? Give reasons for your answer.
b. Do you feel that you learned the repertoire faster or slower in this type of study? Why?
c. Do you think you now could learn a major work on your own now? Why?
d. Could you teach another person how to learn a piece based on the type of learning activities in which you were involved? How would you do this?
e. Did you find that the work you did in your keyboard study helped in the performance of your repertoire? How?
f. Was the practice journal helpful? Why?

SESSION NINE

At the Lesson

1. Perform all the assigned repertoire.
2. Discuss ways to continue preparing the pieces for jury performance.
3. Record the repertoire to assess the playing.

APPENDIX B

TEACHER'S GUIDE TO KEYBOARD CRITICAL THINKING WORKBOOK

TEACHER'S GUIDE TO KEYBOARD CRITICAL THINKING WORKBOOK

TO THE TEACHER

PURPOSE: The purpose of this Teacher's guide is to present suggestions for implementing the activities in the Keyboard Critical Thinking Workbook.

FORM OF THE GUIDE: The guide is presented in a weekly outline form suggesting the procedure to be used at the lesson as well as what the student is expected to do between each lesson. The lessons in the workbook have been designed to be used in a weekly fifty-minute period during a nine-week period of a college semester. The first lesson should consist of a period of getting acquainting, assessing the student's background and aprising the student of what will be expected during the course of study. The implementation of the workbook activities will follow during the next nine weeks, allowing the remaining weeks for the student to perfect his/her repertoire for the jury exam at the conclusion of the semester. Although the workbook has been designed to be used with the college student, teachers can adapt the activities to be used with any keyboard student. The teacher can divide the lessons into smaller segments to proceed at the learning pace of the individual student.

TEACHING PRINCIPLES : The activities in the student workbook reinforce the concepts of critical thinking in keyboard study through specific tasks that include the stages of Bloom's taxonomy: knowledge, comprehension, application, analysis, synthesis and evaluation. Interaction between the teacher and

the student will assist the teacher in ascertaining the student's application of critical thinking to a traditionally skills-oriented study. Interaction is important to the student because the focused discussion and application will encourage independent learning and problem solving.

DIVISION INTO THREE PLAYING LEVELS: The student workbook is designed to be used with students of three playing levels: early intermediate, late intermediate and advanced. The same activities are to be used by all three levels, but the repertoire is selected to correspond to the playing level. The teacher will select the appropriate repertoire for the level of each student. Suggested repertoire for the activities is given for each level.

PREPARATION BY THE TEACHER: A careful reading of the student workbook will indicate the necessary materials needed for the different activites of the workbook. The listening assignments require the recording of repertoire either from existing recordings or by the playing of the repertoire by the teacher. The use of a video camera is required.

SESSION ONE

At the Lesson

1. Instruct the student to examine two keyboard works (one from the Baroque period and one from the Classical period) that you have selected, noticing the composer and dates. Ask the student in which period of music history the composer lived. Review the dates and characteristics of the periods of music.

2. Ask the student to compare the characteristics of the two examined works. Lead him/her to discuss observations about:
    a. Style of the works
    b. Form of the works (ABA, AB etc.)
    c. Articulation (staccato, legato, detached, phrased, etc.)
    d. Expression (amount or lack of, dynamic ranges etc.)
    e. Rhythm
    f. Harmonization
    g. Title (descriptive or non-descriptive, dance etc.)

3. Ask the student to decide the best procedure for practicing the two pieces. This discourse will set up guidelines for him/her to follow for each piece to be studied. Lead the student to think through the following questions:
    a. What appears to be the most difficult sections? Why?
    b. What techniques or strategies do you think would be most beneficial to use in your practicing? Why?
    c. Can you define the expression marks and terms? (if any).

    If the student has difficulty defining the terms, direct him to sources he/she can use for the purpose of looking up the definitions of musical terms.

4. At the conclusion of the lesson, give the student the weekly assignment sheet. Provide five selections from which the student may select two works for practicing. Ask the student to write the five selections on the assignment sheet indicating the two works selected. Suggested repertoire for the assignment:

   a. Early Intermediate:
      Polonaise in G minor, BWV Anh, 112 — J. S. Bach
      Prelude in G Major — Handel
      Menuet in C Major, WoO 10, No. 1 — Beethoven
      German Dance in G Major, WoO 42, No. 6 — Beethoven
      Prelude in F Major — J. S. Bach

   b. Late Intermediate:
      Sonata in C Major, K. 159 — D. Scarlatti
      Sonata in A Major, K. 322 — D. Scarlatti
      Sonatina in D Major, Op. 168, No. 5 — Diabelli
      Rondo in C Major, Op. 51, No. 1 — Beethoven
      Invention No. 6 in E Major, BWV 777 — Bach
      Sonatina in G Major — Hook
      Sonatina, Op. 36, Nos. 3, 5 — Clementi

   c. Advanced:
      Sonata in G Major, Op. 14, No. 2, Mvts. 1,3 - Beethoven
      Sinfonia No. 15 in B Minor, BWV 801 — Bach
      Sonata in D Major, K. 96 — D. Scarlatti
      Sonata in G Major, Op. 49, No. 2, Mvt. 1 — Beethoven
      Sinfonia No. 10 in G Major, BWV 796 — Bach
      Sonata in E minor, Hob. XVI/34 — Haydn

SESSION TWO

At the Lesson

1. Ask the student to tell you which two pieces he/she selected and the reasons for selecting the two. Ask the student to tell you what he/she determined in each piece about:
   a. Style
   b. Form
   c. Articulation
   d. Expression
   e. Rhythm
   f. Harmonization
   g. Title

2. Provide two pieces, one from the Baroque period and one from the Classical period (suggested repertoire below). Ask the student to list at least five distinctive characteristics of each of the two periods. Lead the student to look for these characteristics to compare the two pieces. Suggested repertoire:

   a. Early Intermediate:
      Air — Purcell
      Scherzo in F Major, Hob. XVI/19 — Haydn

   b. Late Intermediate:
      Sonatina in C Major, Op. 36, No. 3 — Clementi
      March in G Major, BWV Anh. 124 — Bach

   c. Advanced:
      Sonata in G Major, K. 14 — D. Scarlatti
      Sonata in C Major, K. 545 — Mozart

3. Ask the student to play sections (or whole) of the first of the two pieces he/she selected. Instruct the student to discuss the piece with the following questions:

    a. Why did you select this piece?
    b. What are the main difficulties?
    c. How did you practice the piece?
    d. How much did you practice?
    e. Did you find the amount of practicing to be sufficient to accomplish what you set as a goal? Why or why not?
    f. What observations did you make about your practicing?
    g. What are your goals for this next week for this piece?

4. Ask the student to play sections (or whole) of the second piece and discuss in the same manner.

5. Give the student the second weekly assignment sheet. Suggest sources for researching the keyboard composers in numbers 1 and 2 of the assignment.

6. Give the student the cassette on which you have recorded eight selections, four from the Baroque and four from the Classical period. (Suggested repertoire follows). This cassette will be used for all listening assignments. Tell the student to listen to the eight selections which you have labeled Section One. Instruct the student to follow the instructions in the student workbook.

Suggested Repertoire:

Section One Tape

a. Early Intermediate:

Fughetta — Zipoli

March in D Major from the *Notebook for Anna Magdalena* — J. S. Bach

Fantasia in G minor — Telemann

Bourree in G Major — Handel

Sonatina in C Major, Op. 55, No. 1 — Kuhlau

Minuet and Trio, K. 1 — Mozart

Eccossaise in G Major — Beethoven

No. 2 in F Major from 12 Short Piano Pieces — Haydn

b. Late Intermediate:

Sonata in C Major, K. 421— D. Scarlatti

Invention No. 12 in A Major, BWV 783 — Bach

Fantasia in C Major (Sonata in C Major), G. 60 — Handel

Sonata in F Major, K. 274 — D. Scarlatti

Sonata in E minor, Hob. XVI/34, *Molto Vivace* — Haydn

Sonata in E-flat Major, K. 282, *Allegro* — Mozart

Rondo in C Major, Op. 51, No. 1 — Beethoven

Sonata in D Major, Op. 25, No. 6, 1st Mvt. — Clementi

c. Advanced:

Sonata in D Major, K. 430 — D. Scarlatti

Sinfonia No. 2 in C Minor, BWV 788 — Bach

Italian Concerto, 1st Mvt. — Bach

Sonata in D Major, K. 96 — D. Scarlatti

Sonata in G Major, Op. 14, No. 2, *Scherzo* — Beethoven

Sonata in A Major, K. 331, *Alla Turca* — Mozart
Bagatelle in C Major, Op. 33, No. 2 — Beethoven

7. Remind the student to continue with the practice journal.

SESSION THREE
At the Lesson

1. Ask the student to discuss his/her observations from the listening assignment. Lead him/her to discuss the list of stylistic characteristics as well as articulation and tempo. Use the following features of the two periods to aid in the discussion:

Baroque Period
Contrapuntal voicing
Polyphonic style of writing
Terraced dynamics
Ornamentation
Use of sequences, subjects, motifs, episodes, etc.
Emphasis on strong beats and upbeat patterns
Absence of phrase and expression markings
Much use of hand and finger independence
Articulation using much detached action for legato and portato playing
Phrasing across the bar lines
Ternary and binary forms, dance forms, variations, fugues, inventions, preludes
Absence of descriptive titles

Classical Period
Homophonic style
Accompaniment patterns (Alberti bass common)
Cadences and modulations
Slurs, staccato
Melody with accompaniment
Balance between the hands
More use of scales and arpeggios

Forms to include sonata allegro, dances, rondos, variations, minuet and trio, etc.
Dynamic contrasts
More use of rests to achieve silence

2. Ask the student to play Piece No. 1. Interact with the student in a discussion of his/her playing. Ask the student to play the piece again and record the playing. Have the student watch the music while listening to the recording. Ask the student to critique the playing. Instruct the student to decide on a section (or whole) to be memorized for the next lesson. Ask the student to describe the way he/she has memorized repertoire in the past. Discuss techniques for memorizing including looking for similar patterns, chord progressions, sequences, etc.

3. Repeat the above procedure for Piece No. 2.

4. Provide a piece from the Romantic period (Suggested repertoire below). Discuss:

    a. Style of the work
    b. Form (ABA, AB, Rondo, other)
    c. Articulation (stacatto, legato, detached, phrasing, etc.)
    d. Expression (Amount, dynamic range, etc.)
    e. Rhythm
    f. Harmonization
    g. Title (Descriptive, Non-descriptive)

Suggested repertoire:

a. Early Intermediate:
Storm and Stress, Op. 140, No. 20 — Gurlitt

The Avalanche, Op. 45, No. 2 — Heller
The Wild Rider, Op. 68, No. 8 — Schumann
Tarantella, Op. 102, No. 3 — Mendelssohn
Morning Prayer from *Album for the Young,* Op. 39 — Schumann
Reaper's Song, Op. 68 — Schumann
Arabesque, Op. 100, No. 2 — Burgmüller

b. Late Intermediate:
Knecht Ruprecht from *Album for the Young* , Op. 68 — Schumann
Sailor's Song, Op. 68 — Schumann
Folk Song, Op. 55, No. 5 — Mendelssohn
Prelude in B minor, Op. 28, No. 6 — Chopin
Nocturne in C minor, Op. Posth. — Chopin
Song of War, Op. 68 — Schumann
Faith, Op. 102, No. 6 — Mendelssohn

c. Advanced:
Ballade in D minor, Op. 10, No. 1 — Brahms
Intermezzo in A Major, Op. 118, No. 2 — Brahms
Prelude, Op. 28, No. 24 — Chopin
Nocturne No. 5 in B-flat Major — John Field
Intermezzo in E Major, Op. 116, No. 6 — Brahms
Hungarian Rhapsodie No. 2 — Liszt
Two Fantastic Dances, Op. 17 — MacDowell
Rondo Capriccioso, Op. 14 — Mendelssohn
Ten Preludes, Op. 23 — Rachmaninnoff
Impromptu in A-flat Major, Op. 142, No. 2 — Schubert

5. Use the above lists of repertoire and play excerpts from several of the pieces for the student. Let the student select one of the pieces to begin practicing. This will now give the student three pieces to be working on for performance.

6. Give the student the third weekly assignment sheet. Suggest research resources for answering the questions in No. 1 of the weekly assignment. Suggest resources for the definitions of the terms asked for in question No. 2 of the weekly assignment.

7. Remind the student to continue with the practice journal.

Session Four

At the Lesson

1. Listen to the student play pieces No. 1. Discuss and critique the playing. Repeat the procedure with piece No. 2.

2. Lead the student to discuss how his/her learning procedure is progressing. (Suggested questions, "Are you practicing sections? Have you found this to be helpful? How? etc.)

3. Ask the student to decide the next piece to memorize from the two remaining pieces being practiced.

4. Ask the student to set goals for having pieces No. 1 and No. 2 at "performance ready" i. e. whole piece at MM__, whole piece with no mistakes, whole piece with musical playing, etc.

5. Lead the student to discuss the questions in the lesson assignment concerning Romantic period music.
    a. Style
    b. Form
    c. Articulation
    d. Expression
    e. Rhythm
    f. Harmonization
    g. Title

6. Ask the student to define the terms from assignment #3. Ask him/her to demonstrate the terms on the keyboard, i. e. leggiero—play lightly on the keys, etc. Provide examples of repertoire that contain the terms to be defined.

7. Hear the practiced section of the assigned Romantic piece. Ask the student the practice procedures he/she found to be helpful during the practice times.

8. Look at the student's practice journal. Discuss the value of the journal. Ask the student his/her opinion concerning keeping the journal.

9. Give the student the weekly assignment sheet. Give the student the piece to be edited from which you have deleted expression marks, title and composer's name. Be sure the student understands the assignment for No. 4. Suggested repertoire for the assignment:

    a. Early Intermediate:
    First Sorrow, Op. 68, No. 16 — Schumann
    The Hunting Song, Op. 68, No. 7 — Schumann

    b. Late Intermediate:
    Echoes From the Theater, Op. 68, No. 25 — Schumann
    Song of War, Op. 68, No. 31 — Schumann

    c. Advanced:
    Consolation, Op. 30, No. 3, from *Songs Without Words* — Mendelssohn
    Folk Song, Op. 53, No. 5, from *Songs Without Words* — Mendelssohn

SESSION NUMBER FIVE

At the Lesson

1. Discuss the student-edited Romantic period piece. Ask the student his/her reasons for the editing. Compare the student's edited version with the original markings of the composer's score.

2. Discuss the student's observations from Section Two (Romantic period) of the listening tape.

3. Ask the student to play Piece No. 1. Record the playing. Let the student watch the music while listening to the recording. Discuss the playing and ask the student to critique the playing. Repeat the procedure for Piece No. 2.

4. Provide several 20th century period keyboard pieces. (Suggested repertoire below). Lead the student to observe and discuss characteristics of the works. Include:
    a. Style
    b. Form
    c. Articulation
    d. Expression
    e. Rhythm
    f. Harmonization
    g. Title

5. Lead the student to observe and discuss innovative techniques in keyboard music of 20th century. Use the list below to guide the student.

20th Century Period including Impressionism

Wide leaps
Use of dissonance
New forms of notation
Shifting meters, polyrhythms
Imagery
Layering of sounds
Planing of chordal lines
Use of 7ths, 9ths, 11ths, 13ths
More extensive interpretation markings
Use of extreme ranges of the keyboard
Precise markings of tempo, dynamics and articulation

6. Give the student the next weekly assignment sheet.

7. Give the student several 20th century period pieces to select one piece to practice for perfomance. (Suggested repertoire below). Instruct the student to select and begin practicing one piece. Remind the student to follow the practice procedure.

20th century pieces

a. Early Intermediate:
Silhouettes, Op. 31 (*Nine Childhood Pictures*) — Rebikov
Diversions, Op. 23 (*Nine Pieces for Students*) — Muczynski
Diversions (*A Set of Five Pieces for Piano*) — Dello Joio
Ten Easy Pieces for Piano — Bartok
Ten Children's Pieces, Op. 27, Book 2 — Kabalevsky

Pour Les Enfants — Tansman

b. Late Intermediate:
Old Grandmother's Tales, Op. 31 — Prokofieff
15 Hungarian Peasant Songs — Bartok
Three Toccatinas, Op. 142 — Persichetti
Six Preludes, Op. 6 — Muczynski
Four Sketches — Milhaud

c. Advanced:
Three Fantastic Dances, Op. 5 — Shastakovich
Six Preludes for Piano, Op. 6 — Muczynski
Danses Gitanes, Op. 55, Vol. 1 — Turina
Sonatina — Milhaud
The Globetrotter Suite (six pieces) — Milhaud
Five Dances, Op. 1 — Creston

4. Show the student the group of pieces in your studio that are to be used for the "on your own" assignment in No. 3 of the weekly assignment sheet. (Suggested repertoire follows.) In addition, any of pieces in the list above could be selected.) Be sure the student understands the assignment. Suggested Repertoire:

a. Early Intermediate:
March — Shostakovich
Variations on a Russian Folk Song, Op. 51, No. 1 — Kabalevsky
The Clown — Rebikov
Minuet from *The First Term ar the Piano* — Bartok
The Bear — Rebikov
Une Journee (five pieces) — Milhaud

b. Late Intermediate:
Sketches in Color, Set 1 and 2 — Starer
Villageoises — Poulenc
The Household Muse, Op. 245 — Milhaud
Nuances, Op. 56, No. 3 — Scriabin
Menuet sur le nom d'Haydn — Ravel
Postludium, Op. 13, No. 10 — Dohnanyi

c. Advanced:
Oiseaux tristes — Ravel
Allegro Barbaro — Bartok
Preludes, Book 1 — Debussy
Three Novelettes — Poulenc
Five Nocturnes — Satie

SESSION SIX

At the Lesson

1. Ask the student to play the four pieces he/she is practicing. Discuss and work with the student on each piece.

2. Ask the student to discuss the list of the stylistic characteristics he/she observed while listening to the tape of 20th Century pieces. Include in the discussion the following aspects of the period:
    a. Style
    b. Form
    c. Articulation
    d. Expression
    e. Rhythm
    f. Harmonization
    g. Title

3. Provide three to five examples of 20th century keyboard music. (Suggested repertoire follows.) Lead the student to discuss specific innovations of the period. Call attention to specifics such as:

    a. Use of extended range of the keyboard
    b. More varied articulation
    c. More frequent changes of tempo, polymeter, etc.
    d. Changes in the wording of expression terms, often in the modern vernacular
    e. Changes in theoretical practices, use of parallel 5ths, changes in voice leading, polytonality, etc.

f. Harmonic differences, dissonance prominent, unusual chord progressions, etc.
g. Changes in form

Suggested Repertoire:

a. Early Intermediate:
Suite Francaise — Poulenc
Scenas Infantis — Pinto
Episodes — Tcherpnin
Tale — Maykapar
The Clown — Rebikov

b. Late Intermediate:
Toccata — Riegger
Danse de la poupee, Valse from *La Boite a Joujoux* — Debussy
Reverie — Debussy
Bagatelle, Op. 5. No. 10 — Tcherepnin

c. Advanced:
Sarabande from *Pour le Piano* — Debussy
Etude in E Minor, Op. 7, No. 3 — Stravinsky
Danse (Tarantelle styrienne) — Debussy
Preludes 1 & 2 — Gershwin
Suite, Op. 14 — Bartok

4. Give the student the sixth weekly assignment sheet. Be sure the student understands the assignment. Instruct the student to use resources in the music library for the research required for the first part of the assignment.

SESSION SEVEN

At the Lesson

1. Listen to the four performance pieces. Discuss each piece with the student. Ask the student for his/her opinions/suggestions concerning his/her playing.

2. Have the student repeat playing each piece while you videotape the performance. This video will be given to the student to view and critique before the next lesson.

3. Play the excerpts you have previously recorded of keyboard repertoire using four selections from each of the four periods studied: Baroque, Classical, Romantic, and 20th Century. (Repertoire can be selected from any of the lists of repertoire used during the previous lessons.) You will use the tape for an ungraded listening test. Ask the student to identify the period and write at least three reasons for the choice. The student should also suggest a possible composer. The excerpts should be short but long enough to adequately identify the period.

4. Give the student the seventh assignment sheet. Tell the student that the notes from watching the video will be collected at the next lesson.

SESSION EIGHT

At the Lesson

1. Listen to the four pieces being learned by the student. Solicit the opinion of the student concerning his/her playing after each piece. Interact and make suggestions.

2. Listen to the "on your own" piece. Ask the student to explain the reasons for his/her decisions for all aspects of the performance.

3. Give the student eight examples of music (two-three selections from each of the four music periods) from which you have deleted the title and the composer's name. Ask the student to determine the period and possible composer. Discuss the reasons for the student's decisions. Suggested repertoire to be used:

    a. Early Intermediate:
    Little Fable from *30 Pieces for Children* — Kabalevsky
    Minuet from *Guida di Musica* — Hook
    Impertinence — Handel
    Fables from *Nine Pieces for the Young*, Op. 21 — Muczynski
    Melody from *Album for the Young*, Op. 68, No. 1 — Schumann
    Minuet and Trio, K. 1 — Mozart
    Prelude in F Major — Bach
    Sonatina in G — Beethoven
    Rhythmic Dance from *The First Term at the Piano* — Bartok

Morning Song from *Album for the Young*, Op. 140 — Gurlitt

March from *Music for Young People*, Op. 65, No. 10 — Prokofieff

No. 11 in F Major from *12 Short Piano Pieces* — Haydn

b. Late Intermediate:

Sonata in A minor, K. 54 — D. Scarlatti

Venetian Boat Song, Op. 19, No. 6 — Mendelssohn

Bagatelle, Op. 5, No. 3 — Tcherepnin

Sonatina in F Major — Beethoven

Cantabile in B-flat Major — Chopin

Humoreske, Op. 3, No. 2 — Prokofiev

Invention No. 6 in E Major, BWV 777 — J. S. Bach

Rhapsody, Nos. 36-37 from *For Children*, Vol. 2 — Bartok

Sheherazade from *Album for the Young*, Op. 68 — Schumann

Sonata in C Major, Hob. XVI/ 35 — Haydn

Dance No. VI, Maruntel from *Rumanian Folk Dances* Bartok

Sonata in C Major, G. 59 — Handel

c. Advanced:

Rondo Capriccioso, Op. 14 — Mendelssohn

La Cathedrale engloutie from *Preludes*, Book 1 — Debussy

Prelude No. 10 from Ten Preludes, Op 23 — Rachmaninoff

Nocturne in E minor, Op. 71, No. 1 (Posth.) — Chopin

Suite Op. 14, 3rd Mvt. — Bartok

Sonata No. 2 — Hindemith
Passacaglia — Copeland
Sonata in E Major, K. 380 — Scarlatti
Sonata in E Minor, Hob XVI/34 —Haydn
Intermezzo in A Minor, Op. 116, No. 2 — Brahms
Bagatelle in C Major, Op. 33, No. 2 — Beethoven
Sinfonia No. 10 in G Major, BWV 796 — Bach

4. Give the weekly assignment sheet. Give a full explanation of what is expected in the assignment regarding the opinion paper. Let the student know the paper will be collected at the next lesson.

SESSION NINE

At the Lesson

The ninth session should include listening to the assigned repertoire with dialogue between the instructor and the student as to ways to continue to prepare the pieces for jury performance. Consider recording the repertoire so that the student and the researcher can critique the playing. Collect the opinion paper as the student leaves.

APPENDIX C

WEEKLY PRACTICE RECORD

WEEKLY PRACTICE RECORD

(Use additional paper if needed)

Amount Practiced
Monday _____

Repertoire and Technic Practiced

_____

_____

_____

Procedures Used

Personal Comments and Observations About Practice

Amount Practiced
Tuesday _____

Repertoire and Technic Practiced

_____

_____

_____

Procedures Used

Comments and Observations About Practice

Amount Practiced
Wednesday _____

Repertoire and Technic Practiced

_____

_____

_____

Procedures Used

Comments and Observatons About Practice

Amount Practiced
Thursday _____

Repertoire and Technic Practiced

_____

_____

_____

Procedures Used

Comments and Observations About Practice

Amount Practiced
Friday _____

Repertoire and Technic Practiced

_____

_____

_____

Procedures Used

Comments and Observations About Practice

Amount Practiced
Saturday _____

Repertoire and Technic Practiced

_____

_____

_____

Procedures Used

Comments and Observations About Practice

Amount Practiced
Sunday _____

Repertoire and Technic practiced

_____

_____

_____

Procedures Used

Comments and Observations About Practice

APPENDIX D

STUDENT QUESTIONNAIRE

STUDENT QUESTIONNAIRE

1. How many years have you studied keyboard? _____
   When? _____

2. With how many teachers have you studied and how long did you study with each?

3. What was the length of each lesson? _____

4. Which best describes your lessons?

   Teacher did most of the talking _____

   Student did most of the talking _____

   Talking evenly divided between teacher and student _____

5. Was your opinion called for in:

   Selection of repertoire _____

   Practicing suggestions _____

   Interpretation of repertoire _____

6. Did you keep a practice record? _____

   If so, how was the practice record used at the lesson?

7. Did your weekly assignment include:

   Listening _____ If so, briefly describe.

   Written activities _____ If so, briefly describe.

   Other

8. Did your lessons include discussions of:

   Stylistic characteristics of musical periods _____

   Definitions of musical terms _____

   Composer information _____

   Forms of music _____

APPENDIX E

WEEKLY KEYBOARD LESSON WRITE-UP FORM

WEEKLY KEYBOARD LESSON WRITE-UP FORM

Student's Name _____

Lesson Number _____

Lesson Date _____

1. Summary of student's practice (amount and personal comments)

2. Assessment of student's preparation

3. List of questions asked by teacher: Number of questions_____

4. List of student's responses

5. List of questions asked by student: Number of questions_____

6. List of teacher's responses

7. Assessment of student's enthusiasm and motivation

8. Assessment of student's acceptance and completion of activities

9. Tabulation of amount of time the teacher talks

10. Tabulation of amount of time student talks

11. Concluding observations (Was everything on the assignment covered at the lesson? If not, why?)

12. Overall indicator of critical thinking skill development

13. Assessment of the learning process and performance of assigned repertoire