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Music Inquiry

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Chapter 1 Introduction

1.1 Inquiry into Music: Course Home

Summary

The extent and variety of Internet-based resources makes it feasible for music learners to pursue a course of study that is focused on their particular goals, problems, and questions. Whether the learner is self-directed or part of a music class or group, a formalized inquiry process, adapted from the literature on inquiry-based learning, provides structure for an open-ended course of study centered on the learner's interests.

1.1.1 Introduction

This module serves as the orientation and course "home" for an experimental course that takes an inquiry-based approach to learning about music. The purpose of the course is to provide guidance for individuals or groups in designing and carrying out music-learning inquiries that are tailored to the educational goals, learning style, cultural background, musical knowledge, and interests of the individual learners.

You will find in this module

- A short general introduction to What is inquiry-based learning? (Page 3),
- A description of the specific How does online music inquiry work? (Page 6) process used in this course,
- Advice for Teachers and Group Facilitators (Page 10) and others who are interested in facilitating a group inquiry,
- A list of Music Inquiry Modules (Page 12) offered through this course.
- Suggested Resources (Page 13) for further reading about inquiry-based learning.

1.1.1.1 What is inquiry-based learning?

Inquiry-based learning is an active, *learner-centered*, structured but *open-ended* approach to education.

Traditional **teacher-centered** schooling methods rely on lectures, textbooks, and rote practice to give students a standardized set of knowledge and skills. Although such methods are efficient and convenient for educators and curriculum designers, many influential educators, psychologists, and philosophers have noted that this approach does not fit well with the way that people learn naturally. Humans have a strong innate interest in learning how their world works, what is going on around them, and how to do things. Think of a toddler who asks questions about everything around him, a child who wants to join in an activity she has been watching, or an adult who takes up a new hobby. All of them are experiencing learning as enjoyable and interesting. Unfortunately, standardized lecture-and-textbook approaches are typically too general and abstract to engage this natural inclination to enjoy learning, because they are not well-connected to the students' immediate, specific curiosities about the world around them. If students do not make those connections for themselves, the information and skills seem to be useless and irrelevant in "real life" and are soon forgotten. In this view, education that is more explicitly connected to the students' lives, and to their natural impulses to understand their world and be capable of acting in it, should be more effective as well as more enjoyable.

Based on these ideas, a variety of **learner-centered** teaching methods have been developed that take into account what the students in a course already know and understand, what engages their interest, and what they might want to be able to do with the thing-to-be-learned. Since learner-centered methods are often **active learning** methods that feature learning-through-doing, they are sometimes categorized according to what the students do: for example, a course might be described as inquiry-based learning, problem-based learning, project-based learning, case-based learning, or role-playing.

When a teaching method is described as **inquiry** or **inquiry-based learning**, it typically involves active learning in the setting of an **open-ended investigation** inspired by a specific question, problem, or project. The point of such an investigation is not to arrive at a "correct" answer that has already been determined by the teacher. Instead, students are expected to consult a variety of resources, investigate possible solutions, gather data, think critically about what they find, create a response that demonstrates what they have learned, seek dialogue and feedback, and be aware of new questions and problems that arose during their investigation. The last step is key; a good inquiry leads to more questions as the students discover that there are other questions, skills, and areas of knowledge that they would find useful, relevant, or interesting. In this way, instead of teaching students a preset or standardized body of knowledge, inquiry teaches them how to be the kind of person who can discover, understand, use, and discuss that kind of knowledge.

What do these ideas look like when put into practice? Here are a few examples of inquiry-style activities:

- Students in a social studies class investigate a local controversy, with the aim of understanding its historical roots, the viewpoints of various sides, and the possible effects of proposed actions. As a class, the students produce a video presenting what they learned in a documentary or news-item format.
- In a computer programming course, students are expected to create a working video game. Students are encouraged to play each other's games and provide constructive critiques.

- In biology, students study a local park or natural area, forming teams that may choose to investigate its plants, insects, birds, terrestrial animals, or aquatic life. Each team's findings are presented to, and discussed by, the entire class.
- To study harmony, each student is expected to choose a favorite tune and harmonize it, writing an arrangement of it that is playable by the members of the music class.

Although each of these inquiries is designed to introduce students to a particular type of knowledge, there is also room for students to engage with the task in a way that makes sense to them personally. For example, one young programmer may focus on creating amusing animations and sound effects for her game, while another is more interested in how to create multiple difficulty levels. The ability of the students to have an active part in choosing the direction of the investigation is intrinsic to true inquiry. For example, the music assignment gives the students room not only for musical creativity, but also for creativity in posing and solving the problem. One student might choose a short, simple tune and harmonize it in four different ways in the course of the arrangement, while another works on creating a jazzy instrumental version of a favorite pop ballad. By the end of the assignment, the first may know more about (and be more interested in pursuing) voice leading and cadence types, while the second has developed an interest in orchestration and jazz harmonies. In contrast, an assignment to "write a two-part invention for piano in the style of Bach" allows a music theory student a degree of musical creativity, but is not sufficiently open-ended to be considered inquiry.

In the short term, the educational results of inquiry are not standardized, because arriving at a standard "correct" answer or acquiring a particular bit of knowledge is not the point. From the viewpoint of inquiry-based learning, a student who responds to the social studies investigation by deciding which side is "right," or by memorizing a list of "facts" about it, has not learned as much as the student who can demonstrate a nuanced understanding of the causes of the controversy, including an appreciation for the concerns of all of the stakeholders and the possible positive and negative effects of any proposed actions.

If the goal in the social studies class had been that all students know particular information - such as important dates - inquiry might not have been the best approach. If it is important that all of the students in the music theory course master the rules of Baroque counterpoint, then the Bach study may be the better assignment. However, if the goal is students who grasp the implications of historical and current events, or who are capable composers and arrangers, the inquiry assignments may be better; the students who have connected the knowledge to their everyday life and their own pursuits are more likely to remain engaged and eventually become genuinely interested in understanding history or writing good counterpoint.

In this way, allowing the students the intellectual "space" to develop a personal interest and connection with the materials eventually serves the long-term goals of the curriculum. For example, following the biology investigation, one student may know more about birds, while another has become something of an expert on local plants. However, both have also learned a basic process that they can now use to learn what the other knows, when they want to or need to. In addition, if the project leaves the class wondering why a park has many different kinds of birds but very few aquatic species, the new investigation that follows will be much more meaningful to the students than it would have been if the teacher had given a lecture on bird migration routes or water quality, and meaningful information is easier to remember and to apply to new situations.

1.1.1.2 How does online music inquiry work?

In general, learner-centered teaching methods are more challenging to organize than teacher-centered ones. However, because inquiry is so dependent on the availability of multiple sources of information, the Internet should make inquiry-based learning much more feasible than it has been in the past. In fact, there is so much information openly available online that many learners might be able to conduct useful inquiries with very little assistance, perhaps just a bit of structure and guidance in how to find useful resources and organize an inquiry.

Inquiry is closely related to the everyday skill of finding the answers to immediate questions, but formal inquiry takes a more long-range, "educative" perspective. It benefits from taking advantage of what educators know about how people learn and about the knowledge that is available in the various subject-area disciplines. For example, someone with a practical engineering problem may not realize that a particular type of math would be extremely useful in solving the problem. A beginning musician may have a clear long-term goal of writing songs for her rock band, but no clear idea how to learn what she needs to know in order to do that. In both cases, some structure and guidance could help the learner create a connection - an educational path - between their own project and "what people know" about engineering or music.

1.1.1.2.1 Inquiry Cycle

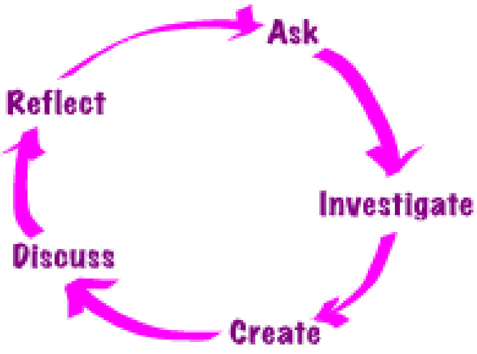


Fig. 1.1: Five steps in an inquiry cycle lead naturally to the next cycle

This is the type of guidance that this course attempts to provide. Because the **content and context** of your inquiry will depend so much on you as an individual, this course focuses instead on the **structure and process** of an Internet-assisted music inquiry.

Inquiry is often pictured as a cycle or spiral with specific steps that lead to the next inquiry cycle, (see Figure 1.1), so each module in this course focuses on a type of question that is common in music-learning investigations and that could be the focus of one inquiry cycle. Rather than providing specific answers - which will depend on the specifics of your question - the module outlines the process for completing an inquiry cycle when you have that type of question. For example, Harmonic Analysis as Inquiry (Page 89) could be used to study a sonata, a jazz tune, or a popular song. Listening to Unfamiliar Music: An Inquiry Module (Page 69) could help introduce you to the music of another culture, or the classical music of your own culture.

In addition to music-inquiry modules, there are also some modules that introduce you to each step of an inquiry (see the following sections). You do not need to do all of these modules. For example, if you have a very clear grasp of both the long-term goal and the beginning question of your inquiry, you can probably skip the "ask" module. However, you may want to do at least one of these inquiries, because these "beginners' modules" provide practice in conducting a cycle of inquiry, as well as practical guidance in how to accomplish each step of an inquiry. However, if you are eager to dive right into your music inquiry, you can begin with one of the Music Inquiry Modules (Page 13) modules, and consult the Introductions to Inquiry Steps (Page 12) modules if you find yourself stuck at a particular step.

This course is published as if it were a typical linear course. If you view these modules as part of the course, your screen should show a left-sidebar that lists all of the modules, as well as a link at the end of the module to the "next" module. However, **you do not have to do all of the modules, nor do you have to do modules in the order that they appear in the course**. There are no automatic prerequisites in inquiry. You decide what you understand well enough for now, as well as what you want to study next. You can find below a Music Inquiry Modules (Page 12) of the inquiry-style modules that are available, or you can view a list of the course modules as a left-hand sidebar if you open the course in Connexions. I encourage you to start where it seems to make sense for you to start, and to contact me if you have suggestions for how to organize this type of course. (This is an experimental course that I consider to be part of an inquiry into how to create online educational materials that support inquiry!)

Inquiry is often pictured as a cycle. For the purposes of this course, I have borrowed a Inquiry Cycle (Page 6) that I learned from Dr. Bertram C. Bruce. Professor Bruce and others at the University of Illinois have created an online Inquiry Page (http://www.cii.illinois.edu/InquiryPage/index.html) that includes useful background information about inquiry as well as many examples of inquiries in a variety of subject areas. There are five steps in this cycle: Ask, Investigate, Create, Discuss, and Reflect.

1.1.1.3 Ask

A good inquiry begins with an inquiry-style question. If it would be easy for you to find and understand the answer to a question, the result is not really an inquiry, it's just "looking up the answer." On the other end of the spectrum, "how do I learn to read music?" suggests an important long-term goal, but it is too broad a question to be answered in just one inquiry cycle.

A question is a good starting point for an inquiry if it takes you into slightly unfamiliar territory, where understanding will take a little effort. What constitutes a good question therefore depends on you. Consider, for example, three people who hear the term circle of fifths (http://cnx.org/contents/807afa02-b32a-4ccb-98cb-78e484d61ca2@18/The_Circle_of_Fifths) and decide to look it up. One has never studied music, cannot follow the explanation, and gives up after a frustrated attempt to understand what "fifths" are. Another has played piano for years and quickly recognizes that the term refers to patterns that he had already noticed when practicing scales. The third is a beginning saxophone student who has to puzzle through the circle by comparing it to the major scales and key signatures that she knows, then uses the circle to predict and play through some scales she has not yet learned, and from there decides to try to understand the "relative minor" scales that are also part of the circle. All three people had the same question, but that question only led to an inquiry in the third case.

If you do not have a clear idea of the goal of your inquiry, or of a question that can get you started off in a first cycle of inquiry, you may want to do the inquiry in the Designing Inquiry Questions (Page 23) module.

1.1.1.4 Investigate

Once you have a clear and useful question, you can start looking for answers. There are two main aspects to seeking new knowledge. One is "what do people know about this?" There are all sorts of resources out there that reflect what other people know, understand, believe, or do. It is possible that you may need to discover information that nobody knows, in which case your inquiry may become a research project - those who have written extensively about inquiry tend to conclude that inquiry-based learning and research follow essentially the same process - but most likely you will find that others have asked similar questions and discovered things that you will find very useful.

The other aspect to consider is "what do I already know?" In order to make sense of "what people know," you have to connect it to what you know, understand, believe and do. You may feel that you know nothing at all that can be connected to learning about music, but if you broaden your ideas about useful knowledge and useful connections, you will find that you do have starting points for your investigation, as well as a "tool kit" of approaches to learning about it.

If you are not certain what knowledge and skills you already have that might help you be successful in your music inquiry, try the inquiry in the Ways of Knowing about Music (Page 15) module. If you would like some practice locating resources and evaluating their usefulness and trustworthiness for your investigation, try the Finding and Evaluating Resources for Music Inquiries (Page 30) module.

1.1.1.5 Create

If you have already mastered a particular area of knowledge, then looking up the answer or listening to an explanation may be sufficient to give a new piece of that knowledge a place in your personal understanding. That is not inquiry; in inquiry, you are trying to significantly expand, broaden or deepen your knowledge or skills, so that you can understand or do things that you could not understand or do before the inquiry. In this case, simply reading about something is not enough to learn it; the only way to create a place in your head for that knowledge or skill is to practice using it. This is why traditional classwork includes so many exercises and chances to practice, and why sports and music learning also center around practice. You may find yourself tempted to skip this step in order to move your inquiry along faster; **do not skip this step!** Take the long view, enjoy the journey, and realize that if there were short-cuts to becoming educated, everyone would be a world-class athlete, musician, doctor or engineer. This is the point at which many self-directed inquiries fail. The learner looks up an answer but fails to do something that turns "what people know" into "what I know and can do." In this type of situation, even if you manage to remember the disembodied "answer," you may fail to recognize the situations in which the information would be useful.

Since this is not a traditional classroom, you as the learner will decide how to organize, use and practice what you are discovering. You may already have a very clear idea of how to practice what you will be learning and how to present it to others in the "discuss" step of the inquiry. For example, if your goal involves composing songs for your band, no doubt you will try to incorporate what you have learned into your song-writing and ask for feedback from band members. If you are less certain how to turn what you are reading and hearing into something to do or create, try the inquiry in the Creative Responses to Music Learning (Page 36) module.

1.1.1.6 Discuss

Learning, understanding, and knowledge generally happen in the context of people doing things together and communicating with each other. You will probably not find your inquiry to be very satisfying if you cannot communicate to others about your understanding or do things that others find to be interesting and skillful. It is therefore ideal to get honest, useful, encouraging feedback - a review or constructive criticism (http://cnx.org/contents/c14a0ab9-43ba-4d9b-82c5-75f44acce8b5@2/Providing_Constructive_Critici) - from others with every cycle of inquiry. You may find it easy to arrange for this type of feedback, for example if you are taking part in a group inquiry, in a class or group that is pursuing related inquiries, or have a music instructor who is sympathetic to your inquiry goal.

If this step is a challenge for you, however, you may be tempted to skip it, and in some cycles you may have to rely on self-critique. **It is important that you not skip this step in every cycle**. You may have to be creative and resourceful in organizing feedback opportunities. The Four Inquiries in Constructive Music Criticism (Page 79) module includes suggestions for assembling a "support" system of people who can offer you useful feedback.

Giving useful feedback that helps other people learn is an art that requires practice. Receiving feedback in a positive spirit can also be a challenge requiring a willingness to acknowledge your present shortcomings without getting discouraged. If your inquiry will involve providing feedback or critique to other members of your class or inquiry group, or if you must sometimes rely on self-critique, or if you have trouble receiving even constructive criticism, you should consider doing some of he inquiries in the Four Inquiries in Constructive Music Criticism (Page 79) module.

1.1.1.7 Reflect

Presenting your ideas and creations to others, and receiving their feedback, should help you realize what you have learned, what is still unclear, what questions and interests others might have about your project, what resources and processes were useful (or not useful) to you, and what new questions are beginning to interest you. Because inquiry does not follow a standardized path to a predetermined conclusion, it is important to assess where the inquiry actually led you, and why, and how that will affect your next question and inquiry cycle. For example, you may decide that you have mastered a particular concept that you needed and are ready to take the next step towards your learning goal, or that you need a break from inquiry to digest and practice what you have learned. You may decide that the inquiry did not leave you where you had hoped to be, and decide to alter it, based on what you did learn, and "try again." Or you may decide to alter your long-term learning goal, a little or a lot, because the inquiry has changed your interests and questions.

If you are not certain how to do this step, try the Assessing Music Learning for Inquiry (Page 48) module.

1.1.1.8 Advice for Teachers and Group Facilitators

Because many of the people who use these resources are individuals learning on their own, I have tried to design this course so that it can be used by individuals without assistance. However, most of the literature on inquiry strongly suggests that group inquiries are preferable whenever they are feasible, because people learn more naturally and easily in working with others. The modules that are part of this course should be easily adaptable to a classroom, performance ensemble, or other group learning situation. (If you do have difficulties using the course to guide group inquiries, please let me know.)

Guiding inquiries is a skill that must be learned and practiced, like any other skill. If you are accustomed to more traditional teaching methods, inquiry-based learning may feel very unnatural at first. Learners who are accustomed to being told what to do and what they should know may also be uncomfortable with the inquiry process at first, although they are likely to become enthusiastic once they have had some practice (Knowles, 1975, p.33). It may be particularly difficult for you to give them support and structure without insisting on directing them to the questions and answers that you believe they should learn. It is useful to approach the project with the expectation that you will also be learning (about the learners, as well as about the subject area).

On the positive side, inquiry-based learning releases you from the requirement to be the expert source of everything the learner needs to know. Since inquiries can take unexpected directions, it would be unreasonable to expect that you would know the answers to all of the questions, and if you did, that might interfere with the investigation step of the inquiry, in which the learner is expected to deal with multiple sources of information. Malcolm Knowles has suggested that the main functions of the inquiry facilitator are to design and manage the inquiry process and to direct learners towards resources that might be useful to their inquiries (Knowles, 1984, p. 14). If you take this approach, then your most useful assets will be familiarity with the inquiry process, familiarity with many resources, and the ability to help learners locate even more resources if necessary.

You can find a great deal of useful advice on guiding inquiries in the sources suggested in the Resources (Page 13) section below. Meanwhile, as you plan the structure and process for the inquiry that you will lead, you may find it useful to ask whether your plan adheres to the following guidelines.

A good inquiry will:

- **Begin with a question or problem that the learner is naturally curious about.** For example, a lesson for young children might be about how to share something fairly, a question that is of natural interest to most children, and which can easily lead to exploration of important math concepts such as division, fractions or keeping track of time. Students who are accustomed to inquiry may be able to develop good questions themselves; others may need a teacher or facilitator to help construct a question that is relevant to their interests and will lead to useful learning. However, the facilitator should be careful not to impose an inquiry that holds no real interest for the learners; for example, children who have just visited a zoo may be very curious about what they noticed, which could lead to some good inquiries into science, but they may have little interest in pursuing science questions that the teacher prepared before the trip.
- **Involve the learner in the discovery of the answer.** Giving learners the facts or answers does not require that they think deeply about the information or the problem. It does not give them space to make sense of the facts or to discover connections between a specific problem-and-solution, and the more general, abstract principles that make it relevant to other questions and problems that they will encounter. Involving them in activities, discussions, and creative projects helps them actually connect with and think through the problem.

- **Allow room for exploration and alternative solutions.** The lesson intended for the "sharing" problem may have been fractions or telling time; but the solution that is attractive to the students might be writing a classroom code of conduct, or constructing an hourglass-type timer. In inquiry, the learning happens when the student makes the connection between the question/problem and the answer/solution. It can be sorely tempting to try to impose the "correct" solution, but if the solution has to be imposed by the teacher, the students are not likely to understand where it came from or be able to apply it to similar problems.
- Not be satisfied with answers that do not involve learning. For example, curiosity about "pirates" could lead to a superficial lesson that simply reinforces popular imagery and stereotypes, or it could lead to an educational inquiry into a specific historical period, or current events, or the relationship between law and international spaces such as the ocean and the Internet. One important role of the facilitator is to ensure that students are not satisfied with easy, superficial answers.
- **Encourage critical thinking, questioning, and awareness of perspective.** This includes students asking questions that are not on the syllabus, challenging standard answers, and developing their own perspective on the subject. For example, "is downloading music from the Internet really piracy?" is a reasonable question, and it is ultimately more useful for the student to be aware of the complexity of debates and laws in this area; to form and be able to defend an informed opinion on the subject; and to understand why others may have different opinions, than it is to memorize an official answer to the question.
- **As much as possible, mimic, teach, and model the way knowledgeable people answer such questions "in the real world."** For example, real historians and reporters don't rely on a single source; they check multiple sources to develop a more well-rounded and nuanced view of "what happened." When an experiment produces an unexpected result, real scientists do not assume they got the "wrong" answer; instead they investigate the causes of the surprise. Students can learn a great deal about "how to do" and "how to be" in the real world from the example you set in dealing with unexpected problems, consulting and checking sources, and searching for explanations for surprising results.
- **Lead to another question that the learner is naturally curious about**, thus continuing the learning process indefinitely.

1.1.1.9 Music Inquiry Modules

The following are included in this course/collection:

1.1.1.9.1 Introductions to Inquiry Steps

- Designing Inquiry Questions (Page 23)
- Ways of Knowing about Music (Page 15)

- Finding and Evaluating Resources for Music Inquiries (Page 30)
- Creative Responses to Music Learning (Page 36)
- Four Inquiries in Constructive Music Criticism (Page 79)
- Getting Feedback on Your Music Project (Page 41)
- Assessing Music Learning for Inquiry (Page 48)

1.1.1.9.2 Music Inquiry Modules

1. Listening to Unfamiliar Music: An Inquiry Module (Page 69)
2. Harmonic Analysis as Inquiry (Page 89)
3. Choosing a Publication License: Four Activities for the Creative Classroom (Page 58) for your musical creation

1.1.1.10 Resources

The course of a good inquiry will depend on specifics, not only on the subject area and goals of the inquiry and the interests and prior understandings of the learners, but also on the resources available for the inquiry, including any teachers or facilitators. This course is my attempt to put inquiry methods into practice in the specific situation of using open Internet-based resources to support self-directed music learning. Even if this course works well, other good inquiries are likely to look very different due to different circumstances.

Inquiry-based approaches to teaching and learning will also vary considerably because they are based on the ideas of different education theorists, philosophers, and psychologists; a variety of approaches have been tested by teachers and education researchers in many different types of situations. If you are interested in learning more about inquiry and inquiry-based learning, here are some general suggestions to get you started.

1.1.1.10.1 Online searches

- As of this writing, The Inquiry Page (http://www.cii.illinois.edu/InquiryPage/index.html) and Thirteen.org (http://www.thirteen.org/edonline/concept2class/inquiry/index.html) had useful introductory information about inquiry-based learning.
- Searches for "inquiry-based learning" will turn up journal articles on education research, as well as suggestions from other teachers for inquiry curricula in the classroom. You may want to focus on "inquiry based lessons" or "inquiry based lesson plans." If you want to know what research is revealing, inquiry methods and study findings depend a lot on the context; look for studies that happened in a similar situation to yours (for example, high school science classes). Keep in mind that "inquiry-based learning" is a very broad concept that different educator/researcher communities may define in different ways. If you are looking

for help constructing lesson plans, you may want to search, for example, for "inquiry based learning science" or "inquiry based learning social studies". However, some educators feel that the division of the curriculum into subject areas is antithetical to the idea of inquiry; after all, an inquiry about music can easily generate questions about math, science, literature, history, or culture. If this makes sense to you, try looking for "inquiry based interdisciplinary learning". Finally, if you are interested in taking an inquiry/research approach to your own teaching (basically, researching/inquiring into how best to lead inquiries in your situation), try searching for "education action research".

1.1.1.10.2 Books

- Cochran-Smith, M., and Lytle, S. L. (2009). **Inquiry as Stance: Practitioner Research for the New Generation**. New York and London: Teachers College Press. Inquiry-based learning is often considered to be closely related to the practice of research as inquiry. Both this book and the one by Wells discuss inquiry as an approach both to teaching and to researching one's own teaching practice.
- Dewey, J. (1938/1997). **Experience and Education**. New York: Touchstone. This book lays out the argument for taking an inquiry-based approach to education, by the philosopher-educator who is considered one of the founders of this approach.
- Knowles, M. (1975). **Self-directed Learning: A Guide for Learners and Teachers**. Chicago: Follett Publishing Company; Knowles, M., and Associates. (1984). **Andragogy in Action: Applying Modern Principles of Adult Learning**. San Francisco and London: Jossey-Bass Inc. **Andragogy** is Knowles' preferred term for learner-based methods, and these two books are practical guides for conducting a widely-tested inquiry-style method.
- Sleeter, C. E. (2005). **Un-Standardizing Curriculum: Multicultural Teaching in the Standards-Based Classroom**. New York: Teachers College Press. This book makes the argument that learner-centered education is particularly crucial for students whose lives and experiences are furthest away from the assumptions of the standard curriculum (for example, those from locally-minority cultures or low socioeconomic status), and provides advice for teachers who would like to implement these ideas within the confines of standardized curricula and testing.
- Wells, G. (2001). **Action, Talk, and Text: Learning and Teaching through Inquiry**. New York and London: Teachers College Press.

1.2 Ways of Knowing about Music

Summary

There are multiple ways of understanding and knowing about music, including aural knowledge, embodied knowledge and cultural knowledge, as well as music theory and literacy. Although most individuals feel more comfortable and accomplished with some of these ways of knowing and less comfortable with others, the different ways of knowing about music interact with and enrich each other and can help the learner develop new and broader understandings.

1.2.1 Introduction

This Inquiry into Music: Course Home (Page 3)-style module delves into a very basic step in any music-learning inquiry: considering where you are "starting from" in your quest to learn more about music, and thinking about where it might be possible to go from where you are. Conducting this inquiry will give you practice in how to do music-learning inquiries. It will also provide useful insights into the types of knowledge that you already have about music and the types of music-learning resources that you have found most useful in the past. These insights should help you find a ground from which you can begin to pursue further music learning.

There are many different ways that you can "know about" music. The discussion below includes five different ways, and there may be more. Ideally, these different types of knowledge complement each other and work together to create a more complete, complex, and useful understanding of music. For example, a musician who is creating an excellent jazz improvisation is probably drawing on music theory and literacy, as well as aural, embodied and cultural knowledge about jazz. When you are learning about music, however, it is often a good idea to concentrate on one type of knowledge at a time, integrating it with other knowledge that you already have. The following section introduces five types of music knowledge. The inquiry that follows will help you think about how to conduct further inquiries that would help you broaden each aspect of your music knowledge.

1.2.2 Five Ways of Knowing about Music

1.2.2.1 Cultural Knowledge

The **cultural knowledge** that you have about music is your knowledge about how the music fits into culture and society. Who would play a piece of music? When and where would they play it, and how would they be dressed? What are the reasons and the rules for playing this kind of music? Who would listen to it, and how would you expect them to react?

If you are not a musician yourself, you may find the cultural aspects of musical performances to be among the most interesting, as well as the easiest for you to learn about. Even if you are most interested in the music for its own sake, separate from the people who create it, you will find that cultural aspects of the music have important effects on the music itself. For example, songs for dancing usually have a strong and regular beat, and popular songs tend to have a slightly-repetitive refrain that is easy to recognize and remember.

Even if you believe you have no knowledge about music at all, you almost certainly have some cultural knowledge about the music traditions around you. For example, if you know what month "Silent Night" should be played, why the audience claps in the middle of live jazz performances, how to dress for a Beethoven concert, or where to go if you want to dance on Saturday night, that is cultural knowledge about music.

1.2.2.2 Aural Knowledge

Musicians often refer to **aural knowledge** as "ear." In many traditions, musicians "play by ear," learning everything they need to know about the music simply by listening carefully and learning how to reproduce what they hear. "Ear" can also refer to the ability to distinguish whether a performance is correct, for example, whether a note is the correct pitch, played in tune with good tone quality and accurate rhythm and style. "Ear" can also refer to recognizing information about the piece, such as the style, genre, instruments used, chord progression, meter, and key, simply by listening to it. Musicians who have music literacy skills, as well as a highly developed ear, can accurately write down a piece of music they have just heard.

Even if you have had no formal ear training, your ear is almost certainly trained to "understand" familiar music; you have trained it just by listening regularly to your favorite music. If you can tell when a piece is being played out of tune, or with wrong notes and rhythms, that is aural knowledge. It is also "ear" that tells you that you are listening to the beginning of the second verse of a song, or that a recording was interrupted rather than reaching its proper end.

1.2.2.3 Music Literacy

Like any other literacy, music literacy refers to how well you can read and write in this medium. Formal music education in common practice (http://cnx.org/contents/2831cad4-20d7-4991-a977-ddb87dedcf07@13/What_Kind_of_Music_is_That?) traditions tend to focus on music literacy; many other traditions focus instead on ear training but may include written forms as practice aids. How useful music literacy is to you will depend on what you want to do. For example, if you want to play Western classical music, literacy will be necessary. If you want to play popular music it would be useful but maybe not necessary. If you want to play folk music, literacy may not even be particularly useful.

Common notation (http://cnx.org/contents/9ab2b7ec-18b0-4f64-a68c-5a5a280c025d@15/The_Staff) is the most widely used way to write down music. However, there are many other kinds of music notation and "shorthand"-type ways to write down music that you may find useful. Some (for example, figured bass) are most useful within particular music traditions, while others (for example, tablature) are most useful when playing particular instruments. (See How to Read Music (http://cnx.org/contents/2ba05db6-4d24-4ece-9084-2c95a136e9a4@1/How_to_Read_Music) if you are not certain what kind of music-reading to pursue.)

If you have tried at all to follow written forms of music, you may be more literate than you realize. For example, If you cannot read a D seventh chord written in common notation, but you know what to play when you see "D7" written above a staff, that is a kind of music literacy. If you learned long ago how to read music notation but have not practiced since then, you may still know a lot of useful information (for example, what a note or rest looks like).

1.2.2.4 Theoretical Knowledge

You can play a piece of music beautifully with no formal theoretical knowledge about music, just as you can add, subtract, and multiply accurately without any formal theoretical knowledge about math. However, at higher levels of math, instruction focuses more and more on the general principles that underlie mathematics and the ways that different types of math problems are related to each other (for example, the ways that subtraction and multiplication are related to addition). The better you understand those general principles and relationships, the easier it is for you to deal with math problems you've never seen before.

In a similar way, **music theory** is a type of knowledge that lets you think and talk about the way different pieces of music are related to each other and the underlying principles that tie them all together. Music theory helps you think about how to tackle "new problems" (for example, composing a new piece of music) in two ways: (1) it gives you the tools to analyze what other musicians have done and to see how their solutions are similar to, and different from, each other; and (2) it provides a vocabulary for discussing these kinds of problems with other musicians.

There are many different music traditions around the world. Since these traditions have different "rules" for creating music that makes sense and is pleasing, they also have different music theories. For example, harmony (http://cnx.org/contents/9b86eea1-acee-487a-93e5-46b71222ab1e@13/Harmony) tends to be the most complex aspect of Western classical pieces, so Western music theory tends to focus on harmony. Indian classical music, on the other hand, is more complex in terms of tuning, mode, and rhythm, so its music theory focuses more on those issues. Concepts and vocabulary also vary from one tradition to another: the concept of key signature (http://cnx.org/contents/e8b8e08a-4bfb-4b4e-af88-c5220ab3375a@18/Key_Signature) is useful in discussing Western music, for example, whereas in Indian music, the concept of raga (http://cnx.org/contents/1719a1ef-029e-417b-bc0a-00d18226348d@16/Modes_and_Ragas:_More_Than_jus) is more useful. In some music traditions, music theory is very formal, including many books and dictionaries on the subject. In other traditions, it is more informal, centered on the terms and concepts that musicians use when they talk to each other about their art.

Even if you have never studied music, you may understand many of the basic terms and concepts that are used to describe the music that you like. For example, even if you have trouble defining them, you may understand what is meant when people talk about notes, rests, beats, rhythms, chords, harmony, verses, bass lines, or melody.

1.2.2.5 Embodied Knowledge

You do many, many things each day without consciously thinking about how to do them, for example, walking, talking, and eating. Your brain and body take care of them "automatically" so that you can pay attention to more difficult or interesting things. But if you watch very young children try to walk, talk, and eat, it is clear that you weren't born knowing how to do these things. They are automatic because you have done them so many times.

There are probably other things that you have done so many times that you can now do them without conscious effort, but you can still remember the time when you had to concentrate to do them correctly: riding a bicycle, perhaps, or driving a car, hitting a tennis ball, using your computer keyboard, or finding your way around town. These kinds of well-practiced knowledge, which allow your body to do what is wanted without consciously thinking about how to do it, are called **embodied knowledge**.

You can have embodied knowledge about music, too. Perhaps you have practiced playing an instrument so often that you no longer have to think about fingerings and you adjust your tuning automatically; perhaps you have danced in a particular style so often that you can do the basic steps without thinking about them. Embodied knowledge about music is useful because it frees your conscious mind to think about the more interesting aspects of the music. If you don't have to think about fingerings and tuning, you can concentrate on delivering the style and emotion of the music. If you don't have to think about basic dance steps, you can think about adding flourishes and variations.

Even if you have had no formal music training, you very likely have some embodied knowledge of music. Most people have a "feel the beat" knowledge that lets them clap, snap fingers, sway, nod, tap toes, walk, march, or dance "in time" with familiar kinds of music. Many people also have embodied singing skills that let them sing, alone or with others, with the correct rhythms and pitches. Although an inability to do this is sometimes called a "tin ear," the problem is usually a lack of practice singing (embodied knowledge) as much as a lack of ear training.

1.2.3 A Music Knowledge Inquiry

If you believe you don't know anything about music, or are not certain what kinds of music knowledge you already have and how they might be useful as you learn more about music, then you may want to start with the inquiry below. If you feel you are already aware of the types of music knowledge that you have and how they might help you learn more, then you may prefer to explore a specific type of knowledge instead: ethnomusicology (cultural knowledge), Listening to Unfamiliar Music: An Inquiry Module (Page 69), ear training, how music is written, learning music theory, and music as practice (embodied knowledge).

1.2.3.1 Ask

The questions you will be exploring in this inquiry are:

- What do I already know about music?
- How did I get that knowledge?
- How might I go about learning more about music?

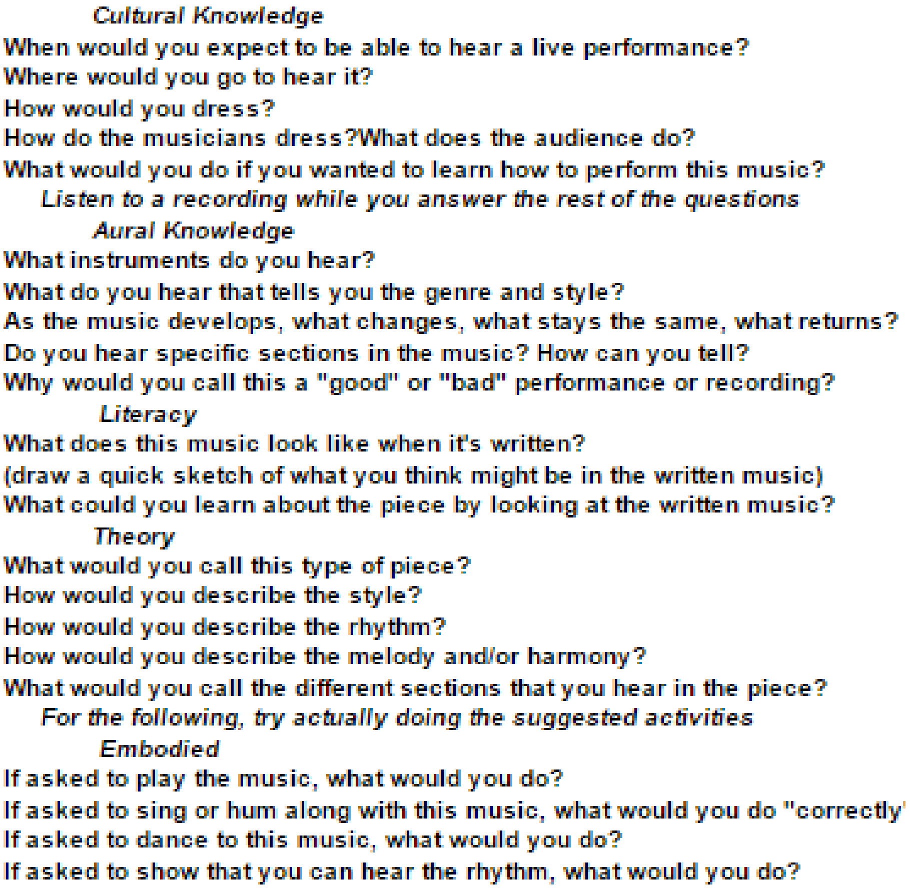
1.2.3.2 Investigate

Choose three types of music to investigate:

- Choose one kind of music that is very familiar because you like it very much and have chosen to sing, play, or listen to it often.
- Choose one kind of music that is very familiar because other people in your culture value it. (Perhaps your music teachers insisted that you learn it, for example, or you hear it in your place of worship, your parents took you to places where it was played, or your friends listen to it often.

- Choose one kind of music that is unfamiliar but that you would like to learn more about.

For each type of music you have chosen, find a recording of a piece that you feel is typical of that type of music. For each of these pieces, listen to the piece and do your best to answer all of the questions in the list below. It's a pretty long list, and you will be answering it three times and then making notes about your answers, so you may want to print out three copies of the list (here is a PDF (http://cnx.org/resources/a6708dde01b0a250ddd35c5846cf6e2fab04a363/MusicKnowledgeQuestions.pdf)) and write the answers in single words or short phrases. (For example, the answer to "what do the musicians wear" might be "tuxes" or "torn jeans and t-shirts.") Use standard terms when you can, but your own descriptions are also fine. (For example, you might describe the rhythm as "salsa groove," "syncopated," or "6/8 time,", but "like a march," "fast and smooth," or "unpredictable" are also good.) If you have no answer at all to the question, write a question mark instead of an answer.



Cultural Knowledge
When would you expect to be able to hear a live performance?
Where would you go to hear it?
How would you dress?
How do the musicians dress?What does the audience do?
What would you do if you wanted to learn how to perform this music?
Listen to a recording while you answer the rest of the questions
Aural Knowledge
What instruments do you hear?
What do you hear that tells you the genre and style?
As the music develops, what changes, what stays the same, what returns?
Do you hear specific sections in the music? How can you tell?
Why would you call this a "good" or "bad" performance or recording?
Literacy
What does this music look like when it's written?
(draw a quick sketch of what you think might be in the written music)
What could you learn about the piece by looking at the written music?
Theory
What would you call this type of piece?
How would you describe the style?
How would you describe the rhythm?
How would you describe the melody and/or harmony?
What would you call the different sections that you hear in the piece?
For the following, try actually doing the suggested activities
Embodied
If asked to play the music, what would you do?
If asked to sing or hum along with this music, what would you do "correctly'
If asked to dance to this music, what would you do?
If asked to show that you can hear the rhythm, what would you do?

Fig. 1.2: List of questions

Now go back and think about each answer that you gave

- If you are confident that an answer would be considered "correct" by the musicians who performed the piece, put a star next to it.
- If your answer may not be the officially-correct answer, but you believe it is accurate and makes sense, put a check mark next to it.
- If you were just guessing, or have no idea if your answer is accurate or would make sense to others, put a question mark next to it.

As the last step of your investigation, look at each answer that is marked with a star or check mark, and try to remember how, where, or from whom you learned it. Write down a short note next to the star or check mark listing where the knowledge came from: for example "piano lessons," "reading," "school choir," "dance hall," "friends," or "Dad."

1.2.3.3 Create

Study the sets of answers on the three sheets. Look for patterns, connections, and themes. For example, does most of your knowledge come from one or two sources? Are you more confident about knowledge from a particular source? Can you group the questions that you could not answer into two or three categories? Are there types of knowledge that seem to be your strong points or weak points right now? Are the patterns the same or different on the three sheets? What you want to create is a way to organize this information so that it says something about you as a musician and music learner.

Create a single chart, diagram, map, outline, or sketch that shows the patterns, groups, connections, or themes that you are discovering. It may take you several tries to figure out how to arrange the information so that it clearly shows the patterns, groups and connections. Simply trying to arrange the information will help you think about it, so try out different arrangements or different types of charts or diagrams until you have something that you think clearly shows something about you as a music learner.

1.2.3.4 Discuss

If you are doing this inquiry as part of a group or class, show your chart/diagram to the group. Explain what you think it shows about you as a music learner. Look and listen carefully to other people's presentations, and ask questions when you notice anything that is interesting, surprising, or unclear. After everyone has made their presentations, compare the various patterns and connections that were found and discuss the likely reasons for similarities and differences.

If you are not part of an inquiry group, try to find a way to discuss what you have discovered about yourself with someone who would be interested. One good way to interest people is to ask questions about the things that you don't know and gather advice, rather than talking about what you do know. For example, your music teacher might want to know that you feel your "ear" is not as advanced as your music-reading; or a friend might admit to having similar questions and suggest that you go to a concert together to try to learn more.

1.2.3.5 Reflect

What have you learned about where you are and where you might go next as a music learner?

- What music knowledge are you most interested in pursuing right now? Are you interested in developing a particular kind of knowledge about familiar music? Learning more about an unfamiliar kind of music?
- What are your strengths as a music learner right now? In what ways might you expand or build on these strengths in your quest to learn more?
- How have you gotten most of your current music knowledge? What types of resources have you found most useful and accessible? How might you find these types of resources for your next music-learning inquiry?
- Is there a particular type of music knowledge that appears to be a weak point for you right now? Might there be resources that you have not tried yet that would help you gain this type of knowledge?

Chapter 2 How to do Music Inquiry

2.1 Designing Inquiry Questions

Summary

Successful learning inquiries depend in part on choosing questions and problems that are both the right size and at the right level for the inquirers.

2.1.1 Introduction

Inquiry takes an approach to learning that is very different from standard educational practices. One of the most basic differences is that the focus of each learning project has not been predetermined by the instructor or the curriculum. Tailoring the inquiry to the needs and interests of the learner makes the learning process much more understandable, interesting, and memorable for the learner, but one thing that is lost is a ready-made plan designed by education experts to guide the learner in useful directions at reasonable speeds.

This makes the first step of an inquiry - asking a question - very important, because it is the question that determines the "speed and direction" of the inquiry. In formal teacher-guided inquiries, one of the most crucial roles of the instructor/facilitator is to ensure that the question is well-connected to curriculum goals as well as to the learner's present understandings and interests. In self-directed inquiries, the learner can become permanently discouraged if the questions asked don't seem to be leading in useful directions.

A good inquiry question:

- **Is challenging** - If the learner can simply look up and understand the answer, there is no need for a structured inquiry.
- **Is within reach of the learner** - If the learner cannot be expected to make significant progress in answering the question after several weeks of reasonable effort, a more manageable question should be adopted.
- **Will lead the learner to new understanding, skills, and/or ways of thinking** - A superficial inquiry that concentrates on learning new "facts" is not the best goal.
- **Is of intrinsic interest to the learner** - A teacher may provide suggestions and guidance and even insist that the inquiry take a certain form or lead towards a particular skill or type of understanding, but the actual question should be one that the learner would like answered.

The music-learning inquiry below is intended both to provide practice in conducting an inquiry and also to help the inquirer learn how to recognize and create the types of questions that will be most useful in future inquiries about music.

2.1.2 Ask

This inquiry will be the "guided" type, for two reasons. One is to provide a focus so that the instructions and examples below don't get too unwieldy. The other is to give you an example of what guided inquiry might look like. If an instructor has a particular curriculum goal, substantial progress can be made towards that goal by asking the student to ask a certain type of question. In this case, you will **start your inquiry by choosing a composer whose work interests you.** (You can choose a song writer, or a performer of largely-improvised works, but not a musician who primarily performs works composed by someone else.) One of the main ideas in music history/appreciation/theory curricula is that musicians influence and are influenced by the music of others. **You will be asking about the influences on this composer's work or on the influence this composer had on the work of others.** Although the specifics of what you learn will depend on your interests and prior knowledge, this is a "big picture" concept that you can learn more about whether you are a novice or a knowledgeable musician.

Asking questions that will have complex answers, such as "how" or "why," or sometimes "what," will help to produce well-rounded, in-depth inquiries. If you already have some idea of the kinds of influences on or by your chosen composer, you may be able to start with an inquiry-type question, such as "Why did Beethoven have such a substantial influence on Romantic-era composers?" or "What influence has Ravi Shankar had on American music?" or "How did church music influence Elvis Presley?"

Questions that involve "who," "where," or "when" usually lead to bits of knowledge rather than deeper understanding. However, if you do not know who influenced or was influenced by your composer-of-interest, you may have to start with that question. It is not unusual for inquiries to start with some early investigations that help to shape the direction of the inquiry. In fact, in this inquiry, rather than posing one question, you will pose and keep track of a whole series of questions that arise as you investigate, and this will help you identify the "good" inquiry question or questions that you create along the way.

2.1.3 Investigate

Begin your investigation with any relevant question (for example "What music influenced Joan Baez?") When a question occurs to you, write it down, and take notes on the answers you find until something in the answers inspires a related question that interests you. Write down the new question, and continue your investigation until you have enough information to create a short but thorough and interesting report or presentation on the influences of or on your chosen composer.

Note: Note that it will be very important to the next step in the inquiry that you keep track of all of your questions, as well as all of your answers. You will also find the next step easier if you can keep track of what made you wonder about each new question. Think of your notes as a journal or diary of your curiosities and your investigation.

Suggested Resources

- **Online articles** - Articles focused on your composer of interest can provide the orientation you need to start asking relevant questions.
- **Online search** - Focus on pertinent information by searching for phrases such as "influenced Brahms", "Brahms influential", and so on. If you phrase your searches as complete questions, such as "How did Duke Ellington influence American pop?" then your "search history" will include a record of the questions you asked.
- **Books** - You may be able to find a book about your chosen composer. Books about a musical era, genre, or style are often organized as a discussion of how the music developed as it was passed from one influential set of composers and musicians to the next.
- **Recordings** - Listen closely to the music of your chosen composer and the others whom you are discovering in your inquiry. Can you hear the similarities and differences that are being discussed in your reading? Can you analyze and discuss what you are hearing in your report? Does your listening raise questions that are useful for your inquiry?
- **Personal Contacts** - If you have chosen a contemporary composer or songwriter about whom not much has been written, a letter or email stating that you are a big fan and that you wonder who has influenced their music might receive an answer. If the composer is local or is giving a show in your area, asking the question in person after a show or while purchasing a CD may get an answer. Follow up by reading about the musicians named and listening to their music.

2.1.4 Create

To encourage progress, both in learning about inquiry questions and in learning about how musical influence works, aim your inquiry at the creation of two things:

- A short essay, report or presentation that summarizes what you have learned about the influences on or by your chosen composer
- A list of the questions that you asked, categorized by their usefulness in your investigation.

2.1.4.1 Report your Findings

This step is important because reading a great deal about something can make you feel that you know it and yet leave you unable to recall or explain it. Taking the extra step to organize what you now understand into a coherent report, essay, presentation, or even conversation, is an important step that will help connect the facts you learned to each other and to the other things that you knew before the investigation. It may also lead you to notice gaps in your understanding and ask a few more useful questions before you wrap up your investigation.

2.1.4.2 Categorize your questions

Your investigation should bring numerous new questions to your mind. For example, if you were investigating the influence of Johann Sebastian Bach on European Classical music, some of your research might cause you to wonder:

Examples of questions inspired by an investigation

- What does "well-tempered" mean?
- Just how many of J.S. Bach's descendents were also composers?
- Does Classical music really sound so different from Baroque?
- What is counterpoint?

Typically, as you do your research, you would just follow up on these questions, to see what the answers tell you in relationship to your main question. But for this investigation you should **write down each question that the investigation inspires** and make notes on what you found out in answer to that question.

After you are finished with your investigation and your report/presentation, categorize your questions. You can do this either by creating a table with three columns and putting each question in the correct column, or by creating a question "tree" in which each question leads either to an answer, to other questions and searches, or to a dead end. In either case, you should end up identifying three types of questions.

A Question Tree

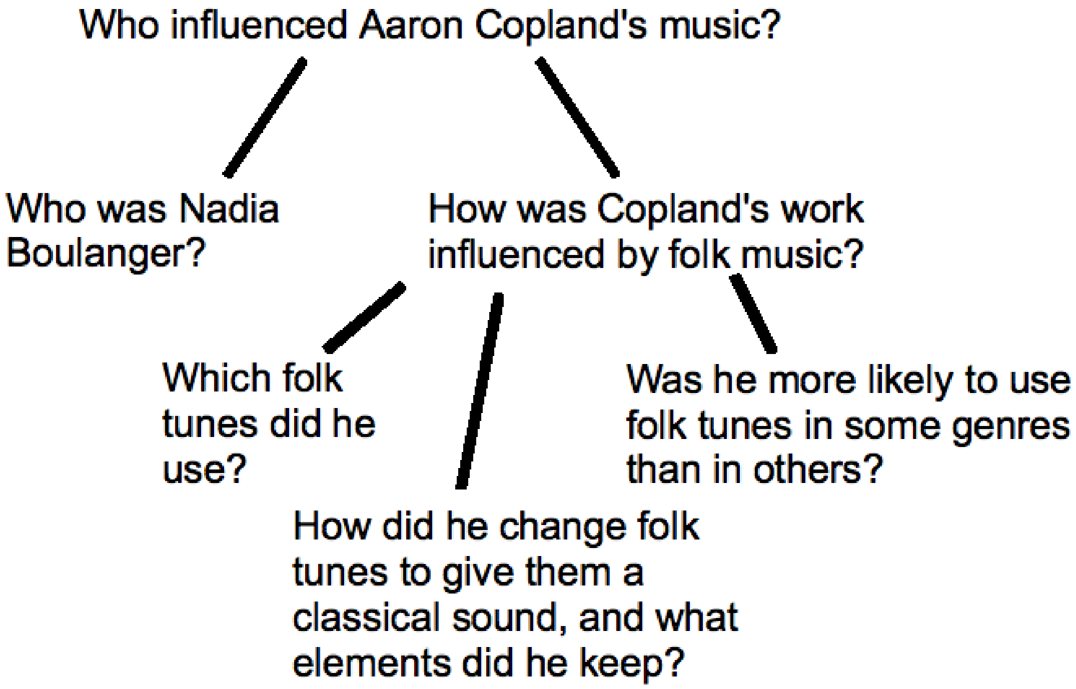

Who influenced Aaron Copland's music?
Who was Nadia Boulanger?
How was Copland's work influenced by folk music?
Which folk tunes did he use?
Was he more likely to use folk tunes in some genres than in others?
How did he change folk tunes to give them a classical sound, and what elements did he keep?

Fig. 2.1: Two of the questions in this inquiry led to more questions; they were good inquiry-type questions. Three led to fact-gathering, so they were good for the investigation, but not for inspiring an inquiry. The "how did he..." question was too difficult for the inquirer to pursue without more music theory and ear-training background

Question Categories

- Questions that you answered with a few **facts**
- Questions that inspired **further questions, deeper investigation, insights, attempts to test or practice tentative understandings (for example, while listening to or discussing music, or while playing an instrument), or attempts to organize, compare, or check the information you have gathered.**
- Questions that you abandoned because understanding the answer **required background knowledge** that you do not have

It is important to realize that how a question is classified depends on the learner and the context.

For example, Inquirer A might look up J.S. Bach's descendants, note how many were composers, and include that as a "fact" in the report. But Inquirer B might become very interested in those sons and how their lives and music were affected by the fact that J. S. Bach was their father. B's final report might even focus on a musical family "dynasty," a phenomenon that is fairly common in the world of music but that B had never thought about before, making this question one that led to new insight.

On the other hand, Inquirer B might find that discussions of "well-tempered" tuning employ many unfamiliar terms and so require too much background knowledge to pursue during this inquiry, while the same question leads Inquirer A to new insights about tuning systems and the history of keyboard instruments.

So the goal of this creation is to develop some insights about you as an inquirer. What types of questions led you simply to discover facts that you found easy to understand

and use in your report? Although they are useful during an inquiry because they lead to relevant information, **"fact" questions do not make good inquiry-guiding questions**, because they do not encourage you to stretch your understanding, abilities, or the ways you think about music.

Which kinds of questions became the focus of your investigation, causing you to ask more questions, dig deeper into the literature, think about what you found, question or compare the answers you found, or change the way you think about music and musicians? **Investigation/insight questions make the best inquiry questions.** Did you have only one question in this category, or was there more than one? Consider carefully what it was about these questions that put them in this category for you.

Finally look at the questions that you could not pursue because understanding the answer requires more background than you have right now. Some of these questions may have lost your interest already. However, there may be a question or two in this category that really frustrate you because you would like to have that background and be the kind of person who can understand the answer to that question. **Questions that require more background than you have right now do not make good questions for your next inquiry; however they can serve as guide-posts to keep you on track in a long-term series of inquiries.**

2.1.5 Setting a long-term goal for a series of inquiries

Inquiry based learning is often driven by a long-term "practical" goal. Typical goals in music learning are often a bit vague, for example:

Vague long-term music-learning goals

- I want to know more about music.
- I want to play an instrument better.
- I want to be a better composer.

In inquiry, it is much more useful to have very specific learning goals that are stated in terms of being able to do something that you cannot do now. This helps to keep you on track and measure your progress over the course of a series of inquiries. For example:

Specific long-term inquiry goals

- I want to be able to understand what "well tempered" means.
- I want to be able to play my favorite tunes by ear.
- I want to be able to include counterpoint in my compositions.

The long-term goal should be something that would genuinely please you. For example, "I want to be able to play all the scales on my instrument" is almost certainly a goal that comes from your teacher's interests, not yours. However, if you find in your investigations that one reason you cannot play your favorite tunes by ear is that you don't know your fingerings well enough, you may decide that studying scales is an inquiry step that would get you closer to your goal.

Once you have a long-term inquiry goal in mind, you can start looking for the first inquiry question that will start you in the right direction. For example, if your long-term goal is to understand what is meant by "well-tempered," you might decide to begin by studying one of the terms used to discuss it. **Ideally each inquiry will lead naturally to a new inquiry that will bring you even closer to your long-term goal.** However, if your goal is very ambitious or very distant from your present state, you may find yourself getting sidetracked by new interests or backtracking to pick up other necessary knowledge. You can either choose to change your long-term goal or stick with it, but you cannot rush the process any more than a five-year-old can rush the process of becoming fifteen years old. Either way **you should feel you are growing as a musician, and you should be enjoying the learning process**. If there is no progress or enjoyment, take the "reflect" step of each inquiry as an opportunity to try to figure out where the problems are and what changes might help.

Once you have a long-term inquiry goal in mind, you can start looking for the first inquiry question that will start you in that direction. For example, if your long-term goal is to understand what is meant by "well-tempered," you might decide to begin by studying one of the terms used to discuss it. This might lead to an interesting investigation, or you might have to follow up on difficult terminology a few more times before you find explanations that you are capable of investigating right now. If you cannot seem to find an entry point into a subject area, consider doing the Types of Knowledge inquiry to find out more about the Inquiry into Music: Course Home (Page 3) and resources you do have that can serve as a starting point.

2.1.6 Discuss

If you are doing this inquiry as part of a class or group, share your report/presentation with others in that setting. Also set aside some group/class time to discuss everyone's experience with designing inquiry questions. Did everyone have at least one question in each category? In what ways do people's categories of questions look the same or different? Did the inquiries follow roughly the same course?

If you do not have a formal setting for sharing this inquiry, consider how you might get some feedback on it. Can you adapt the report or presentation to be appropriate for some other class assignment? Can you discuss it with a music teacher, or share what you learned in a conversation with a friend who has similar interests in music?

2.1.7 Reflect

Good inquiry tends to lead to more inquiry. One of the main goals of reflecting on the inquiry you just finished is to identify questions that it raised for you that might become future inquiry questions. As you reflect on where this inquiry has left you, here are some points that you may want to consider:

- Do you feel ready to try setting the questions for your own music-learning inquiries? If not, what is missing? Would it help to do more practice in classifying questions? (If so, try doing the question-classifying inquiry above, but starting with the question about music that most interests you right now.) Would it help to do more inquiries that set the question for you? (If so, try ***Listening to Unfamiliar Music***.)
- Do you still have questions about musical influences that you would like to follow up with another inquiry?
- Was one of the "too difficult" questions something that deeply interests you and that you might want to use as a long-term inquiry goal?
- Did you run into problems that suggest that you might benefit from guided practice in other inquiry steps, for example, Types of Music Knowledge, Finding Useful Music Resources, Creative Responses to Music Inquiry, Getting Feedback on your Music Project, Positive Music Critique, or Assessing a Music Inquiry

2.2 Finding and Evaluating Resources for Music Inquiries

Summary

There is a very wide variety of resources that might be helpful to a music learner. The usefulness of any particular resource depends on its availability, trustworthiness, understandability, and relevance in the learner's current situation.

This Inquiry into Music: Course Home (Page 3)-style module guides you through the process of locating and evaluating resources that might be useful in an inquiry about music. It is meant to serve both as practice in how to do a formal inquiry and also as a specific orientation to the **Investigate** step of an inquiry. After doing this inquiry, you should have a better idea of the types of resources that will be available and useful to you in your own inquiries about music.

2.2.1 Ask

This inquiry will actually focus on two questions. **The main question is: what kinds of resources can I find to answer my questions about music, and how useful will they be in answering my questions?**

In order to explore the answer to that question, you should choose a **question about music to use as a focus** for this investigation. This inquiry will be most useful if you choose a question that:

1. Is a good question for a formal inquiry (see Designing Inquiry Questions (Page 23));

2. Is about a musical tradition, genre, style, composer, or performer that you would like to know more about; and
3. May have more than one reasonable answer. This inquiry asks you to consider the relative trustworthiness of different sources. This is a much more interesting exercise when some sources give different answers. Is there a confusion that you have about music because different sources appear to give different answers? Do you know of a controversy, for example, about how to perform a certain style of music, how to learn a certain skill, or how to categorize a certain composer's work? Or can you think of a question that might be answered differently by experts in different music traditions?

2.2.2 Investigate

There are several different, interconnected challenges involved in locating useful learning resources:

- Finding relevant information
- Evaluating the relationship of the information to your investigation
- Connecting with and understanding the information
- Organizing and internalizing the knowledge

The following investigation invites you to consciously think about each of these problems as you search for answers to your question.

2.2.2.1 Finding Relevant Information

There are many different types of sources of knowledge about music. You will probably find some easier to understand, more useful, or more persuasive than others. (See Ways of Knowing about Music (Page 15).) In this first step, you are simply looking for information that seems to be **relevant** to your investigation. It might contain an answer to your question, or someone's opinion about the answer, or definitions or examples that will help you understand the answer, or facts or discussions that would be useful in comparing different answers or constructing an answer for yourself.

For this investigation, try to find **at least one relevant resource from each of the following categories**. If you find it frustratingly difficult to find any particular type of resource, you can skip that category; but every time you skip a category, substitute a second resource from an easy-to-find category. For example, if there are no local experts available, but video lectures are easy to find, choose two video lectures and skip the local expert. You should have nine resources in all.

- **Local experts** - Can you get useful help by talking to someone you know? This might be a music teacher; a director of a choir, band, or orchestra; a band mate; or a friend or relative who knows more than you do about the subject of your

investigation. Your local "expert" may be able to offer or demonstrate an answer to your question, or may be able to suggest useful resources such as a favorite book on the subject or a useful hands-on investigation to try.
- **Online text definitions and explanations** - In Internet search results, look for an educational website, online dictionary or encyclopedia, commercial question-answering forum, or paper or journal article that has been published online.
- **Video lectures, explanations, or demonstrations** - These can be online videos published at educational or commercial sites. Informational videos may also be available at a local library. If there is a live lecture or demonstration available to you, this is of course even better, as it may give you a chance to ask questions.
- **Blogs, magazine and journal articles, and music reviews** - Articles and discussions in popular venues help give you an idea of what other people are thinking, wondering, or arguing about. If you have no idea what controversies may exist in your area of interest, this can be a good place to start. This category includes hard-copy magazines and journals as well as online articles.
- **Books** - If you have no books of your own on the subject, search in a local library's catalog to find a book that looks relevant. Then go to that shelf and see whether there are other books that might be even more useful. You can also find on the Internet free versions of books that are in the public domain.
- **Original documents** - The experts base their books and lectures on information that was gathered by looking at what is out there in the world. Can you find some of that real-world information and look at it for yourself? There are many different ways to go back to an original source; in music, this includes listening to the music for yourself, as suggested below. Useful original documents might include a copy of a piece of music, an interview with a performer, a composer's published letters, or the data collected in an acoustics experiment.
- **Audio recordings and online audio clips** - This is another great way to "go to the source." Consider your music question. Is it focused on a particular instrument, a composer, a style or genre of music, an aspect of music theory? What recordings of music would help you "hear" and understand what you are reading?
- **Live performances, online video clips, and video recordings** - Along with the music itself, live performances or video recordings may also contain clues that would help you understand what you are reading or put it into context. Pay close attention to the particulars of the performance (the who-what-where-when-and-why), and to what the performers and audience are doing.
- **Hands-on personal investigation** - Can you test what you think your resources are saying by playing on an instrument, or by singing, dancing, conducting, or tapping your foot along with a music recording?

2.2.2.2 Evaluating and Understanding the Information

As you collect and use your resources, you are making judgments about them that are not only about relevance. You also make value judgments about each source. This "evaluation" step cannot be separated from the "understanding" step, because **your**

evaluation of the source affects the way that you understand it, and your understanding of it affects your evaluation. Here are some examples:

- If an explanation uses too many unfamiliar words or concepts, you will make the judgment that it is not (presently) **understandable** and therefore not a good resource for you. Other sources may offer explanations that you feel are too simplistic or basic to be helpful to you.
- You may prefer some explanations because they are more relevant or **useful** to you than others. For example, two explanations of harmonics might be equally "good," but a brass player might prefer the one that uses a trombone to demonstrate the concept, while a string player finds the violin demonstration much more useful.
- If the information is offered in a commercial or political context, you may decide that its primary purpose is to sell you or persuade you of something. This may affect your judgment of how **trustworthy** the information is.
- Sometimes the **point of view** - what you might call the "bias" - of the information is actually also useful information. For example, if you are trying to understand a concept from a foreign music tradition, musicians in that tradition may talk about the concept in one way, while experts in your own tradition talk about it in another. In this case, it is useful for you to be aware of, and understand, the relationship of the point of view to the information itself and also to your own point of view and your current understanding.

So as you explore and study your nine sources of information, take notes on what you are learning. But also, take notes on which sources you find understandable, trustworthy, and useful, and why. Consider where your judgments are coming from. Do you consider books more trustworthy? Personal acquaintances? Do you find lectures more understandable than text explanations? Do you doubt the judgments you make for yourself when you are listening to music? Do you feel you only understand something when you can play it for yourself? Do you prefer the explanation that is closest to your point of view, or do you want to understand why there is a variety of views? Are your current judgments serving you well in your efforts to learn, or would it be useful to expand your horizons or become more discerning?

A final important consideration regarding the usefulness and trustworthiness of the information is: **Who considers this information to be true or trustworthy, and why?** This is particularly important if you want to belong to or interact with a particular community; you will want your definitions, understandings, and ways of creating or discussing music to be compatible with and acceptable to that community. Consider the following examples:

- The **academic community** judges trustworthiness by whether the author is an academic expert (for example a Ph.D.) in the subject, whether the source has been published by a respected journal or book press, and whether it clearly cites its own sources (for example, in footnotes, or in a bibliography).
- In many **communities of people who create and enjoy a particular kind of music**, the trustworthiness of sources is judged by their status in that particular music community. Trusted insights about the music might come, for example, from someone who is widely respected within that community as a composer or

performer. In such communities, personal relationships with respected musicians are also often respected as reliable resources. For example, someone who was a long-time student of a respected performer is considered a trustworthy source for explaining that performer's approach to music.

- Some types of music also have a **community of music educators** who are judged in part on their academic credentials and in part on their demonstrated ability to teach others to understand, perform, or create music.
- In some **cultures**, the trustworthiness of a source depends on whether it comes from within a particular cultural, ethnic, or nationality group, and therefore has an authentic insider's perspective on the meaning of the music.
- In many **reporting situations**, trustworthiness is established by demonstrating that the reporter is aware of and understands the point of view of all of the major perspectives on the subject.

2.2.2.3 Organizing and Internalizing the Knowledge

When information is easy to understand, you don't need an inquiry to learn it; you can just look up the answer. If you're doing an inquiry, you are trying to build for yourself a new area of knowledge. Simply hearing or reading the answer will almost certainly not be enough. You can reread and revisit the resources that you found most useful, or continue to look for other useful resources. However, one of the best ways to turn information into something you can understand and use is to actually use it to do something. That is why the **Create** step is such an important part of an inquiry.

2.2.3 Create

For this inquiry, design and create a project that requires you to do something that you could not do before you studied the information in your sources. Here are some suggestions:

- A musical composition, improvisation or performance that demonstrates what you have learned. Be prepared to discuss and show how your creation demonstrates the answer to your question. If you can use music to demonstrate more than one point of view, that is even better!
- A presentation that compares at least two different views of the subject that you have been researching. This could be a poster, slide show, or written report.
- A report that answers the question you asked. This can be a text, speech, video, or slide show report. Do not simply borrow explanations from your favorite sources; actively synthesize your own point of view from multiple sources. Include musical examples if possible.
- A research guide to the specific resources that you found useful. Include a brief description of what you learned from each one, and be sure to include enough citation information (URL, doi, author and publisher, recording information, and

so on) that someone else could easily locate the resource. This guide could be a written report or a slide show presentation.

2.2.4 Share

If you are working in a class or inquiry group, share your creations with each other. For each person in the group, allot enough time both for presentation and for discussion. The discussion following each presentation should maintain a positive and helpful atmosphere, focusing on bringing the entire group into a deeper engagement with the subject of the inquiry. The group leader or other group members may find it useful to:

- Ask for clarification of anything they did not understand;
- Ask for further information about any points that interest them;
- Volunteer possible alternative explanations or points of view that the presenter did not discuss;
- Suggest other resources that might be relevant to the inquiry question;
- When appropriate, challenge the trustworthiness or the point of view of the resources used.

If there is time, wrap up the presentation session with a discussion comparing the inquiries. How were the inquiry questions and investigations similar or different? Were any group members inspired to take a different approach to future investigations?

If you are doing this inquiry on your own, you may still be able to find an opportunity to present your creation formally to a teacher or class, or to a group of musicians that you play with. Or consider having an informal conversation about your investigation with someone who might be interested, such as a parent, music teacher, friendly librarian, band mate, or friend or relative who is interested in music. If you focus the conversation on interesting or unexpected difficulties that you encountered, you may get some useful advice!

2.2.5 Reflection

Reflecting on your inquiry can help you decide what to do next in your quest to learn more about music.

Here are some questions that may help

- What did you learn that will help you find the most easily available and understandable resources the next time you have a question about music?
- Was there a type of resource that is not available to you, or that you cannot seem to use successfully? Is access to this type of resource important to you right now? If so, can you think of anything you can do to gain it?

- What did you learn about how your judgment and point of view affect the way you learn about music?
- Did your inquiry bring up a different question that you did not have time to pursue, but that you would like to learn about next?
- If you are working in an inquiry group or class, did the discussion suggest that there might be useful resources or points of view that you have not yet studied? Does it make sense to do a little more investigating before you finish this inquiry?

2.3 Creative Responses to Music Learning

Summary

An active, creative response to new ideas and information is a crucial step in formal inquiry. In the area of music, there are many possible types of creations that can be a useful part of inquiry-based learning.

2.3.1 Introduction

This Inquiry into Music: Course Home (Page 3)-style module will help you explore some of the types of "creations" that can be a useful part of the music-learning process, with the aim of discovering which ones might work best for you right now.

Actively responding to new ideas and information is an important step in the learning process. If the only things you do as a learner are passive (for example, listening, watching, and reading), then the new knowledge tends to be formal and abstract, useful only in highly controlled situations such as giving memorized answers to expected questions and problems. On the other hand, if you take an active, creative part in the process (for example, challenging the new ideas with thoughtful questions or using the new information in a creative way), then the new knowledge is more likely to become an integral part of your understanding, available to be used in a wide variety of real-world situations.

Good teachers will include opportunities for active learning in their programs, but if you are pursuing music-learning goals and projects on your own, you may have to be creative in thinking of active ways to learn what you want to know. There are many, many different ways to be an active music learner, even if your main goal is mainly to become a more knowledgeable listener. The lists below do not include all of the possibilities; they may help you think of other activities that you would find even more educational and interesting. Below the lists, you will find an The Inquiry (Page 39) that is designed to help you experiment with some of the possibilities for yourself.

Music Creations

- **Formal exercise** - Set yourself a goal of composing a short exercise that will force you to practice the concept you are trying to learn (for example, writing 4 measures in 6/8 time, notated correctly, or composing 8 measures of counterpoint).
- **Arrangement** - Take a piece of music that you like and set yourself the goal of arranging it in a way that practices the concept you are trying to learn (for example, transpose it to a new key, or change the rhythms to give it a different style).
- **Original composition** - Choose a musical form that you like (for example, pop song form or sonata form) and compose a piece using the new concept.
- **Improvisation** - During your regular practice sessions, practice creating improvisations that explore or demonstrate the new concept. (For example, make yourself include major seventh chords in your improvisation, or set yourself the task of modulating to a different key during the improvisation.) Record some of the improvisations for sharing and reflection.

Enacted music

- **Play it** - If you are an instrumentalist, study the concept by choosing several pieces that include good examples of it (for example, pieces that use the melodic minor, or that are in the musical style that interests you). As you practice the pieces, study their similarities and differences and the ways that they incorporate or use the concept.
- **Move to it** - Find appropriate recordings and play them while moving in a way that highlights the concept you are learning. (For example, conduct the 5/4 time, find dance steps that fit the compound meter, clap in a way that highlights the syncopated rhythm, or move your arms to indicate the contour of the melody.)
- **Sing it** - Find appropriate recordings and sing along to them in a way that highlights the concept you are learning. (For example, sing a different syllable for the accented notes, or hum along with the harmony or the bass line instead of the melody). Singing is also a very effective practice tool if you are having trouble demonstrating the concept on your instrument. Try singing the piece that you are practicing, using the correct accents, dynamics, articulations, or phrasing. Once you can sing it correctly, you can work on the instrumental technique that will allow you to play the concept as well as sing it.

Visual Presentations

- **Poster** - If the poster is meant to be a stand-alone presentation rather than part of a talk, make sure it includes enough explanation.
- **Graph, Chart, or Illustration** - There are many different ways to arrange information visually, for example, as branching trees or flow charts, on time lines, bar graphs, or pie charts, or within overlapping ovals or concentric circles. Try to choose a way to arrange the information so that it shows something interesting, in a way that can be understood quickly and easily. Make sure to include a "key" with enough explanation so that it is easy to figure out what the graph or chart shows. Do not simply recreate someone else's chart. Choose a different way to illustrate the information; or, if you find a particular chart very useful, consider how you might expand or add to it to make it even more informative.

- **Artwork** - Some musical concepts may lend themselves to expression as a visual artwork, for example, a painting evoking the music's timbre, or a drawing evoking the form of a piece, or a sculpture evoking its texture. Since the main purpose of the artwork is educational, include an oral or written explanation of how the artwork demonstrates the musical concept you are studying.

Written Presentations

- **Report** - After learning about a musical concept (or genre, style, or historical era) see if you can write your own summary of the ideas. In order to avoid the temptation to simply quote what you read (which does not force you to think about it and really understand it), use your report to explain how what you read is related to something that you are doing as a musician or a piece of music that you have been listening to. For example, after reading about Baroque music, choose a piece you have been practicing or listening to, and explain why you would or would not call it Baroque.
- **Poem or epigram** - This is another way to avoid simply quoting other people while demonstrating that you understand what they mean. Can you think of a creative way to explain the idea or give the information, for example using a poetic metaphor to compare the musical idea to something more familiar, or inventing a short, rhyming epigram that helps you remember what you need to know?
- **Journal entry** - If you are committed to a long journey of discovery, for example to try to understand a foreign music tradition, consider creating a learning journal, in which you will keep track of what you have learned, what you are guessing at, where you have found useful information, what you have listened to, and what your new questions are as your education progresses.
- **Story or Narrative** - This might be a non-fiction narrative, for example telling the story of your struggle to understand the new information, or it might be a fictional story that illustrates how the information might be useful in a "real-life" situation.
- **Review** - In a review, you apply the information you are learning by listening for relevant examples in a piece of music. Choose a performance or recording of one piece of music, listen to it carefully, and then write a review of it that focuses on the concept that you are learning. Your review can be positive or negative, or have elements of both; the aim is to discuss how the concept was present (or not) in the recording or performance. For example, three reviewers might attend the same performance of a piece, and one might write about the form of the piece, another about the textures of the music, and another about the conducting.

Audio-Visual Presentations

- **Dramatic performance** - For example, of a poem or story illustrating the musical concept.
- **Slide Presentation** - The audio portion of your slide presentation can be a narrated explanation; or if the slides are self-explanatory, it can be music clips.
- **Video** - For example, a videotape of a dramatic performance, or a series of video and audio clips with narration.

- **A talk** - You can read a written report, or improvise a talk from notes. To make it audio-visual, include some visual presentation, for example, bring some objects to display, include a simple poster or a few slides, or draw on a board to help explain your talk or to emphasize the main points. You may also want to include an audio clip, or a short performance or demonstration of the concept.

2.3.2 The Inquiry

2.3.2.1 Ask

Your question for this inquiry is: **What kinds of activities seem to be most helpful for learning what I want to know about music right now?**

2.3.2.2 Investigate

Begin your investigation by thinking about your current music-learning goals. Are you trying to become a more-informed listener, a better singer or improviser? What types of investigation will this require? Will you be learning, for example, about Western music theory concepts, about the cultural practices surrounding a particular music tradition, about the acoustics of your instrument? If you have no idea, consider doing the Designing Inquiry Questions (Page 23) or the Ways of Knowing about Music (Page 15) inquiries before doing this one.

Once you have decided on the type of learning you will be pursuing, consider whether you have learned anything in this area recently. For example, if you are trying to improve your music-reading skills, have you learned something useful about music-reading lately? If you want to study the history of jazz, did you learn something very interesting about that history recently?

If you have learned something in your chosen area recently, do a little extra research to ensure that your understanding is accurate and to pick up any useful background or extra information. (If possible, go back to the original source of the information to refresh your memory, and then look for at least one other resource, to gain a different perspective on the information.) Then use that learning experience as the focus for the **Create** step of this inquiry.

If you have not learned something in your chosen area recently, try to think of a question in that area that you believe has an answer that you will find useful or interesting, but that will not require extensive study. You are looking for something that you will be able to do or to understand after studying only two or three resources, so that your focus in this inquiry will remain on the creative process rather than the research. (If you have no idea what to ask, the following inquiry modules might help inspire a question that interests you: Designing Inquiry Questions (Page 23), Aural Knowledge (Page 69), Ways of Knowing about Music (Page 15), Four Inquiries in

Constructive Music Criticism (Page 79).) Find two or three resources with answers to your question (see the Finding and Evaluating Resources for Music Inquiries (Page 30) module if needed). Once you feel that you have learned something useful and interesting, you can go on to Create step.

2.3.2.3 Create

Your focus in this inquiry will be on discovering what kinds of creative activities help you to practice, understand, and/or remember what you have learned. There are five categories above, with eighteen suggestions for creative activities to demonstrate what you have learned. Read through all eighteen suggestions, looking for some that you are interested in trying. Make notes on each suggestion, for example, about how possible and how interesting you believe this activity would be, and how appropriate it is for the ideas and information you have just learned. (You can print this PDF (http://cnx.org/resources/d8c0d21448dbebbdf84c2186ed5e38efd526c515/CreationTypes.pdf) to help you do this.)

Choose three activities, from three different categories if possible, and **do short versions of all three** (for example, a report might be two or three paragraphs, while a video might be one or two minutes long). Although you are doing miniature versions of each activity, try to do a good, presentable job on each one. For example, if you choose to do an artwork, do a small finished piece, not just a sketch or description of what you would do.

2.3.2.4 Discuss

Choose one of your three creations to present to others.

If you are doing this inquiry as part of a inquiry group or class, present the creation you have chosen to the entire group. Introduce your presentation by describing your other two creations and explaining why you think this creation is the best way for you to present the information. The group should respond to each presentation with questions, suggestions, and other feedback.

If you are not doing this inquiry with a group, try to find at least one person who would be interested in your presentation, for example, a friend or family member, a band mate or music teacher, or, when relevant, perhaps a teacher and class in a different subject (for example, speech, drama, history, or social studies). (For more suggestions, see Inquiry into Music: Course Home (Page 3).) Give a short explanation of what you are doing, show them the presentation, and then ask for feedback: Did they enjoy it? Did they understand it? What did they get out of it? Do they have questions? Do they have suggestions for making it more understandable or more enjoyable?

2.3.2.5 Reflect

As you consider what types of activities might be most useful and relevant to your music-learning preferences and goals, the following questions may also be helpful:

- In what ways did each of the three creations challenge you to understand the concept better or help you to practice it or remember it?
- Did the comments that you got in the **Discuss** step suggest any ways to make your creative project more educational or your presentation more enjoyable and informative? Did they suggest that you might want to try a different way of approaching that type of creation, or a different type of creation altogether?
- What types of creations did you avoid, and why? Are you comfortable leaving all of these types unexplored, or are there some that you would like to learn how to do? How might you pursue these?
- Were any of your creations more difficult or easier than you expected, and why?
- Were there some types of creations that sounded interesting or fun but that did not seem relevant to this particular investigation? Might they be more relevant and useful to some of your future learning projects?
- What was it that made you choose the one creation that you presented? Would you have been comfortable presenting the others, and if not, why not?
- Have you found particular types of creations that seem ideal for you at this point? If not, what else might you try?

2.4 Getting Feedback on Your Music Project

Summary

Individuals who are independently pursuing music-learning projects can benefit from the knowledge of others by actively seeking feedback on their projects. There are many possible sources of useful feedback and constructive criticism, but the learner should follow some basic rules when seeking this kind of help.

2.4.1 Introduction

Music is a social activity. Even when you are making or listening to music alone, your experience is connected to what you have heard in other people's musical creations and performances, and what you have learned about their musical understandings, activities, and preferences. Whether you are learning to be a more-accomplished musician or a more-informed listener, it is important to get feedback, to connect your own musical journey to the understandings and expectations of others. However, as many young musicians stricken by "stage fright" can attest, this can be one of the most uncomfortable parts of learning about music.

It can be particularly challenging if you are trying to make progress on your own music learning goals and projects. Most music-learning programs include built-in opportunities for feedback: concerts, recitals, tests, or group discussions. If you are learning on your own, who might be willing and able to give you useful feedback? You will find in this module:

- A list of suggestions concerning Types of people who might help (Page 42)
- A list of Rules for Seeking Feedback (Page 44) for asking for help in ways that won't annoy others or waste their time.
- An inquiry designed to help you The Inquiry (Page 46) who can help you.

2.4.2 Types of people who might help

The lists below are not complete. The goal here is to get you thinking about who specifically might be willing and able to help you. I have grouped the suggestions into three broad categories:

- **Experts** are people whom you would approach because they know more about the subject than you do. Even if you are already an experienced musician, if you are exploring a new type of music, a new instrument, or a new activity (such as composing), there will be many people whom you can treat as experts.
- **Allies** are friends, family and colleagues who are interested in you as a person and will want to support your efforts to learn and grow. They may not be music experts, but they almost certainly have experience listening to and thinking about music. They also may have more time and more willingness than experts to discuss things with you in depth or over an extended period of time.
- As research has shown, **crowds** have an expertise of their own; comments from many different strangers may give you a good sense of the typical reaction to your musical ideas or creations. Keep in mind, however, the reason that many music students develop stage fright: Unlike allies and music experts, crowds of strangers are not invested in you as a person or in your development as a musician. Some may choose - for reasons that have nothing to do with you - to make negative, hurtful remarks rather than give thoughtful, helpful feedback. **Seek comments from crowds only when you believe that you are sharing the best that you are capable of producing right now and are certain that negative comments will not knock you off course as a music learner.**

Experts

- **Private music teachers** - Music teachers make their living giving feedback to developing musicians. Although most music teachers want to focus on a particular program of study in their area of expertise, any vocal or instrumental teacher whom you see regularly should be willing to also occasionally give feedback on your personal music projects. Some music teachers are also willing

(for a fee, of course) to give just one or a few lessons or consulting and advice sessions to music learners who have their own specific goals.
- **School teachers** - If you are taking a music course in school, your teacher may be willing to help you with your own music-learning project. If you are in school but not taking a music course, find out what courses are available to you. Some music courses are flexible and project oriented, which may provide opportunities to submit your work for one of the course assignments. If you are not in school, but there is a community college, music academy, or adult education program nearby, you may be able to enroll for a course or two.
- **School ensemble directors** - School directors tend to be very busy but also very interested in their students' growth as musicians. If you are in a school band, orchestra, or chorus, you may be able to make an appointment with the director to get some feedback on your project.
- **Community ensemble directors and members** - Another possible source of free help from an expert may be available if you are involved in a volunteer ensemble, such as a church choir, town band, or community orchestra. Other members of the group, including the director, may be highly experienced musicians and may judge that helping you develop as a musician will be good for the whole group.
- **Professional and semi-professional musicians** - Like professional music teachers, those who earn a living (or just some extra money) performing are often willing to be paid for the occasional lesson/consulting session.

Allies

- **Peers and band mates** - If you are in a band, orchestra, chorus, or music class of any kind, your peers may share musical interests with you and may even have a strong interest in helping you develop as a musician. Some may have more experience in the area that interests you.
- **Friends** - You may have friends who share your musical interests, who would enjoy an unusual discussion about music, or who are particularly good at giving useful constructive criticism.
- **Family members** - As with friends, family members might enjoy discussions about your musical interests or goals, or enjoy demonstrations of your projects. They may also be particularly interested in seeing you grow and succeed as a musician.
- **Fans** - If you are already a performing musician with a following, your fans might enjoy being asked their opinion about your new project.

Crowds

- **Live audiences** - If there is a venue where you can present your project to a crowd, consider talking to audience members before or after the performance and asking for specific feedback.
- **Online audiences** - If you cannot gather a live crowd, you may want to consider publishing your efforts, for example as a video file on the Internet or a blog about your music-learning adventures, and inviting comments.

2.4.3 Rules for Seeking Feedback

Whether you are paying for expert advice or asking for feedback from a friend or a crowd, the serious, helpful attention of other people to your problems is a very precious resource, and should be treated accordingly! Otherwise, people will quickly become tired of your questions. So

Note: Rule #1 is "Do not waste people's time and attention."

- Do not approach anyone for feedback until you have made as much progress as you can on your own. Ask for comments on completed projects or on thoughtful ideas that you have developed in your own listening. Otherwise your helper is likely to waste time giving you suggestions that are nothing new to you.
- Keep it short. Don't expect a marathon help session unless you have paid for one. Prepare a really short demonstration of what you can do right now, and ask only one or two questions about improving it. For example, if your completed project is a ten-minute movement in sonata form and you are having trouble with the modulations, just play the parts with the modulations, unless your helper specifically asks for more.
- Make it easy to give the feedback. For example, if you want comments on your composition, provide a written version for them to write comments or notes on.
- Listen to all feedback with a genuine desire to learn from it. Don't ask for help from anyone whose criticisms or suggestions you will not take seriously.
- Don't ask for help too often. Get one or two useful pieces of advice, and do not return with more questions until you can demonstrate that you have put that advice to good use.

Different people will be able to give different kinds of help. So

Note: Rule #2 is "Only ask for help that is easy for that person to give."

- Ask non-experts questions that will be easy for them to answer but will still give you useful information. For example, if you have arranged a piece for your instrument, simply asking friends which parts of the arrangement they like best or least can be very useful, even if they cannot explain why.
- Remember that even non-musicians can be listening experts. For example, someone who listens often to country music may be able to offer very useful comments about a country song you have just written.
- You can accommodate those who are uncomfortable giving criticism by asking neutral questions such as "do you like version A or version B better?" or "how would you describe this piece?"
- Ask experts for help in their area of expertise, or ask them for general help. For example, you cannot expect help with saxophone fingering or technique from a vocalist, but the vocalist can comment on the musicality of a saxophone performance and might also have some useful suggestions about breath control.

- If they cannot help without looking up information, withdraw the question or ask how you can look it up for yourself.

People will be much more likely to remain interested in helping you if you clearly have the right attitude about receiving help. So

Note: Rule #3 is "Be attentive and grateful."

- Approach all feedback with an attitude of wanting to learn as much as you can from it.
- If you disagree with an any feedback, work to uncover and understand the source of the disagreement rather than dismissing it outright. Consider the possible benefits of being able to follow the advice in some situations.
- Consider whether and how you might show your gratitude for any free help. For example, if your community choir director has been helping you, can you volunteer some of your time to help the group? If you want to discuss with a friend how to understand a particular style of music, could you pay for tickets to a concert or invite the friend over for snacks and a pleasant listening session?
- Do not force anything unwanted on your helpers. For example, if your band mates do not want to perform your songs, ask for useful comments and suggestions. Take their comments to heart and work cheerfully and humbly on improving your skills until they find your work interesting enough to perform.

Some people will be better than others at giving thoughtful, useful, constructive criticism (http://cnx.org/contents/c14a0ab9-43ba-4d9b-82c5-75f44acce8b5@2/Providing_Constructive_Critici) that you can understand. So

Note: Rule #4 is "Protect yourself from criticism that harms you as a musician and music learner."

- Always practice receiving constructive criticism (http://cnx.org/contents/c14a0ab9-43ba-4d9b-82c5-75f44acce8b5@2/Providing_Constructive_Critici) in the spirit in which it is intended: not as an attack on what you can do now, but as recognition that you can learn to do even better. If even friendly, helpful advice feels hurtful to you, consider working on developing an attitude of wanting to benefit more from the knowledge of others. It may help to Four Inquiries in Constructive Music Criticism (Page 79) for yourself.
- Be aware that some people do enjoy giving **attack criticism**, which is intended to make the receiver feel less capable or competent. You can recognize attack criticism because it contains no positive comments and no helpful suggestions for improvement. If you have teachers who engage in attack criticism, try to replace them. If other experts or allies appear to be giving attack criticism, seek feedback elsewhere. If you ask for feedback from crowds, be aware that you are very likely to attract attack critics, and be ready to dismiss their comments as being focused on their own needs rather than on yours.
- You may get feedback that is genuinely intended to be helpful, but, for whatever reason, does not speak to your needs as a music learner at this time. Again, if this is often the case with your music teacher, you might consider looking for a different teacher. If an expert or ally gives this type of advice, consider seeking help from

someone else next time. If nobody else is available, consider asking different questions next time.

2.4.4 The Inquiry

This Inquiry into Music: Course Home (Page 3) is designed to help you locate some of the sources of useful feedback that are available to you as a music learner.

2.4.4.1 Ask

Your question for this inquiry will be: **From whom can I get constructive criticism that will help me pursue my music-learning goals?**

2.4.4.2 Investigate

For your investigation, decide on an area of music learning that you would like to focus on right now. For example:

- If you want to become a more knowledgeable listener, decide on a type of music that interests you and what you would like to learn about it.
- If you want to work on singing or playing an instrument, what specific skill or ability would you like to work on right now?
- If you would like to improve your abilities as a composer, arranger, songwriter, or improviser, what specific skill or ability would you like to gain, and in what music genre or style?

Deciding on a specific music-learning focus may require almost no research; you may already have something in mind. If not, you may need to do some reading, listening and/or thinking. If you have trouble stating a specific interest or learning goal, consider doing the inquiry in Designing Inquiry Questions (Page 23) or in Ways of Knowing about Music (Page 15). If you are not certain where to look for reading or listening resources, consider doing the Finding and Evaluating Resources for Music Inquiries (Page 30) inquiry.

2.4.4.3 Create

Prepare a creation that shows off the best that you are capable of doing in that area right now. This might be, for example, a song you have written, a piece that you have been practicing on your instrument, or a short essay describing what you hear when you listen to the music that interests you. You may have to prepare this creation "from scratch" or you may be able to polish up something you have already worked on. If you have no idea what kind of creation would show off what you know right now, consider doing the inquiry in Creative Responses to Music Learning (Page 36).

As you prepare your creation, make a list of any problems that you cannot seem to solve, any weaknesses that you do not know how to fix, or any specific learning goals that you think might make it better.

If it truly is not possible to prepare a creation to show off your present abilities, then prepare a set of well-thought-out, thoroughly researched, intelligent questions instead. (For example, if you have not even bought an instrument yet, you may want to research instruments and then ask some well-informed questions about what you should buy.)

2.4.4.4 Discuss

The "Discuss" step is the part of an Inquiry into Music: Course Home (Page 3) in which you get feedback, so this is the crux of this particular inquiry. Choose **at least three people** and arrange to present your creation to each of them, separately. As much as possible, try to **choose different kinds of people**, for example, one teacher/expert, one peer/bandmate, and one friend/relative.

Listen carefully to any feedback they want to give, but ask each one at least one specific question that should give you useful information about your "problem" or "goal." Work on your creation a little more with their suggestions in mind before you answer the "Reflect" questions.

If you are doing this inquiry as part of a class or group, report on and discuss your experiences with your group before making your final reflections. As a consideration toward your helpers, do not name them in your discussion. Refer to them in an anonymous way, for example, as "a friend" or "a fellow choir member."

2.4.4.5 Reflect

As you reflect on the feedback you have gotten and think about where you might turn for future help with your music-learning goals, consider the following questions:

- How easy to understand were the suggestions from each of your helpers? How different were they from the understandings you already had?
- How useful did each suggestion appear to be when you went back to working on your creation?
- How useful do you expect the suggestions to be as you continue to work on this problem or goal?
- How convenient or difficult was it to schedule a session with each person?

- Did each appear to be willing and eager to help? Interested in your problem and questions? Busy or distracted?
- Can your growth as a musician directly benefit any of these people in any way? Can you think of reasonable ways you might "repay" the help?
- Can you think of any other people in each category who might also be willing and able to give you help and suggestions? Does it make sense to extend this activity by also presenting your creation to them? Would it make sense to try some of them the next time you want feedback?
- If you do not seem to have enough people to ask for this kind of support, is there something you might do to build new connections? (For example, could you join a group? Start one? Take a class? Build online friendships with others who share your musical interests and goals?)

2.5 Assessing Music Learning for Inquiry

Summary

In order to get the best results from inquiry-based learning, the learner should not rely on assessment by others, but should regularly reflect on such issues as what has been learned, what new questions have arisen, and what the next cycle of inquiry should include.

Inquiry into Music: Course Home (Page 3)-based learning differs from traditional classroom teaching in many ways, including the way in which the results of the learning process are assessed. Formal learning processes always include an assessment step, a moment when the following concerns are addressed in some way:

- What knowledge or skills has the learner gained?
- What has not yet been understood or mastered?
- What aspects of the learning process were most helpful, and which were the least helpful?
- Given the answers to the other questions, what would be the most useful educational steps to take next?

In **informal learning**, individuals simply learn about whatever interests them, on their own and without formal assessment, although they may consciously or subconsciously notice what kinds of experiences tend to lead to new skills and interesting ideas.

In **traditional education**, assessment usually involves testing. Students often receive a grade reflecting individual progress, but curriculum issues, such as what to study next and how to study it, are typically decided on behalf of entire groups of learners, rather than individuals.

In formal inquiry-based learning, the learner regularly reflects on what has been learned, what new questions have been raised, and what direction to take next. For example, in the style of inquiry used in these Inquiry into Music: Course Home

(Page 3) modules, reflection is a step that takes place at the end of every inquiry cycle, to help prepare for the next cycle. If the inquiry is being guided, the teacher/facilitator may also assess the learner's progress, giving feedback or even grades. However, regardless of whether there is a teacher/facilitator, **inquiry-based learning works best when it includes regular, in-depth reflection by the learner about the inquiry itself**, because the learner has significant control over the questions that guide the learning process and over the choice of the materials that inform it. The learner is therefore expected to seriously consider such issues as:

- What do I hope to gain from this learning process, and what hopes do others have for me? What progress have I made towards these goals? What (and who) has contributed to that progress? What might be slowing my progress?
- What have I learned so far? How does it fit in with what I do, and with what I think and believe? How does it not fit in with my life and my views, and what might help me understand the discrepancies?
- How does it fit with what others know and believe? Am I looking at all sides of the question? Who values the knowledge and perspective that I am gaining? Who values other knowledge and perspectives on this subject, and should I be learning from them, also? Do I need to broaden the course of my inquiry, and how would I do that?
- Am I getting to the root of what I need or want to know? Do I need to deepen my inquiry, and how would I do that?
- What new questions have been raised along the way? Am I developing new curiosities and puzzlements that I need or want to explore? Should I consider taking a side trip into another area, opening up a new area of inquiry alongside this one, or changing course altogether? What would be the effects of such changes?

2.5.1 The Inquiry

Many music learners are so accustomed to being assessed by teachers, testers, judges, and others that they may be uncertain how to usefully reflect on their own progress. This inquiry is intended as practice in this process, and may also provide new inquiry-based learners with insights into ways to begin a self-motivated music inquiry.

2.5.1.1 Ask

Your question for this inquiry will be: In my music learning so far, what kinds of assessment, observations, and reflections have motivated me to learn more about music?

Note: I have chosen motivation as the focus of this inquiry because it is so fundamental to success in learning. If you prefer, you can substitute a different focus. You may choose, for example, to ask what types of assessments, feedback, and reflection have helped you decide what to learn next, or how to study it, or have provided you with new ways of seeing yourself as a musician and music-learner.

2.5.1.2 Investigate, Create, Discuss

This inquiry is somewhat unusual, in that the Investigate, Create, and Discuss steps will all be done together. The investigation will focus on your own past and current experiences in learning about music. Your creation will be a record of what you learn in your investigation, and your discussions with others will also be focused on your investigation.

Step 1 - Begin by considering what you know about music, and trying to remember where you have learned it. You may have already received an extensive formal music education, or you may have picked up what you know about music more casually. Make a list of the experiences that have taught you most of what you know about music, and be sure to include any of the following types of experiences:

Formal music education

- Private music lessons on an instrument or voice
- One-on-one music instruction from a friend or relative
- Group music lessons
- Music classes

Learning by Doing

- School-based band, choir, or orchestra
- Community-based ensemble, such as a town band, community orchestra, or church choir
- Ensemble with friends, for example a "garage band"
- Professional or semi-professional ensemble

Casual Music Learning

- Watching and listening at concerts, dances, or other events that feature or include music
- Casual musical participation, for example joining in the singing or dancing at an event, or singing karaoke
- Listening to music and talking about music with friends or relatives
- Listening to music on your own
- Reading about music on your own

Step 2 - You are going to assess some of these experiences based on how well they have motivated you to learn more about music. Choose at least 3 experiences in which you learned something about music and were motivated to learn even more; that is, you were motivated to continue learning in that way for a long time, or else the experience inspired you to seek out other music-learning experiences. These should be specific experiences, for example, a particular school band that you played with for as many years as possible, or a concert where you learned about a particular style of dancing, which inspired you to take a dance class.

Also, choose at least 3 specific experiences that made you lose interest in learning about music. These might be, for example, lessons that you quit as soon as possible, or an experience with friends that caused you to conclude that you do not have enough musical talent.

If you are having trouble recognizing what you have already learned about music, consider looking at Ways of Knowing about Music (Page 15). If you can't remember any specific music-learning experiences, discuss it in conversations with your relatives and friends. Your parents may be able to remind you, for example, of a short-lived effort at violin lessons, or your friends may recall classes, conversations, or outings that have slipped your mind.

List all six of the experiences that you have chosen, in a way that will let you make notes about each experience in steps three and four.

Step 3 - Write a short description of each experience, focusing on why it was motivating (or why not). For example, list specific things that happened, people who were involved, skills you gained, ideas you discovered, or feelings that you had, that made you want to learn more about music (or not).

If possible, get multiple perspectives on what happened by discussing the experiences with others who were there.

Step 4 - Finally, consider how music learning was "assessed" in each of those experiences. For example:

For each positive and each negative experience, note:

- Were there formal music-learning goals (specific skills or knowledge that you were supposed to gain)? If so, who decided on them? Were they in line with your interests? How aware were you of them? (If possible, check with teachers to discover what the official learning goals actually were.)
- What type of feedback did you get that indicated what others thought about your developing music skills or knowledge? (This could be either formal or informal feedback, for example, grades or reports from teachers, applause from audiences, critiques from judges, encouraging comments from fellow band members, or arguments with friends who disagreed with your statements about music.)
- Whether the feedback was formal or informal, was it primarily positive or negative, or a balanced mix? Were negative comments offered in a spirit of constructive criticism (http://cnx.org/contents/c14a0ab9-43ba-4d9b-82c5-75f44acce8b5@2/Providing_Constructive_Critici) or in a spirit of discouragement? If at all possible, do some research to verify that your memories are accurate. Check report cards; look at the comments your teacher wrote in your lesson book; ask your friends, family, teachers, and peers what they remember about that experience.

- If you received no feedback at all (for example, if you attended a performance that inspired you to learn more), did the lack of feedback give you the confidence to learn more, or make you uncertain that you could succeed? What impression did you get from the experience about what kinds of judgments and assessments people make in that area of music? (For example, did you get the impression that that kind of music is learned just for fun, or that learners are held to high standards?) How accurate was that impression? (If possible, do a little research or discuss this with someone who knows about that subject, to find out.)
- Was feedback random (for example, unexpected comments from friends or peers); based on your improvement over time (for example, a gold star for learning a difficult new piece); graded on an absolute scale (for example, an A for completing the work expected in a course); or based on a comparison with other musicians (for example, winning a contest, or auditions for ranked seating within a group)?

2.5.1.3 Reflect

Look over the notes you have made about each experience, and reflect on what they tell you about what kinds of assessment you respond to most positively. This may affect the choices you make as you decide how to pursue your own music-learning goals. For example, the course of your inquiry may look different, depending on whether you find critique by experts to be motivating, intimidating, or irrelevant. You may find the following questions helpful to your reflection:

- What types of goals do you find motivating? Do you seem to be motivated by sharing a common goal with a group of musicians? Do you seem to make better progress when a teacher sets clear goals, or do you prefer to set your own goals?
- What types of feedback do you find particularly motivating or discouraging? For example, are you discouraged by activities that rate you against others? Motivated by opportunities to perform in front of a crowd?
- Whose opinions do you consider valid assessments of your progress? Can you get feedback from such people regularly? If not, can you build into your reflections the types of questions and feedback that such people would give?
- If you are going to be pursuing a music learning goal on your own, how might you arrange to include motivating feedback from others? What types of reflection and self-questioning would keep you motivated to continue? What types would leave you discouraged and unable to continue? What realistic, concrete goals can you set that will help you measure your progress?
- Should you plan on pursuing your music-learning goal at least partly in a formal music-learning situation? In a learning-by-doing situation? In informal meetings with friends?

Chapter 3 Cultural Knowledge

3.1 Music and Culture

Summary

Exploring the non-musical aspects of a musical event can be a rewarding approach to learning more about music.

There are many different Ways of Knowing about Music (Page 15). Some of them require music-specific capabilities, such as a well-trained ear or ability to read music. Understanding the cultural aspects of music, on the other hand, requires no specific musical training. This can be a rewarding approach to understanding music, whether you are a musical novice or an expert. You can use this approach to learn about the music of other cultures, to learn about unfamiliar music that is part of your own culture or heritage, or to become more aware of the historical and cultural aspects of familiar music.

A cultural approach can also provide an entryway into beginning to understand and appreciate some of the more technical aspects of music. For example, if you know that jazz audiences applaud enthusiastically following a particularly good improvised solo, hearing that applause at jazz events helps you begin to hear, identify, and appreciate the musical qualities of good improvisation. The Inquiry into Music: Course Home (Page 3) in this module takes you through a process of deliberately learning more about the cultural aspects of music that most intrigue you.

3.1.1 Ask

To begin your inquiry, you must first come up with a question that genuinely puzzles and intrigues you about the way music is done. This should be a question about the cultural meaning of music, a "why" question. It can be a question about your own culture, a "**Why do we...**" question. For example, you may thoroughly enjoy Christmas caroling, but still wonder why people go caroling specifically at Christmas time. Or it may be a question about a culture, a time, or a group of people that does not include you, a "**Why do they...**" or "**Why did they...**" question. For example, you might wonder why orchestras began including a certain instrument in the nineteenth century; why the audience sang along with one piece at a concert, but sat quietly for the rest of it; or why your grandparents know how to do a dance that nobody else among your family and friends can do.

3.1.2 Investigate

Although the question driving your inquiry is a "why" question, in order to answer it clearly, you should also look for the answers to the other questions about the musical practice that you are trying to understand:

- **Who** does it? People of a particular age, gender, ethnicity, religion, nationality, culture, historical era, social or economic class, station in life?
- **What role** do they have in the music? Are they composers, singers, dancers, players of a certain instrument, conductors or directors, stage hands? Are they a live audience or fans who often listen to recordings? The teachers of the performers, the family of the composer, judges, professional critics?
- **Where** does the practice in question happen? In certain countries or regions, cities or towns? In particular venues (for example, churches, stadiums, concert halls, school rooms, living rooms, front porches, street corners)?
- **When** does it happen? At particular times of the year or the week? Certain times of day? Does it happen often, rarely, regularly, unpredictably?
- **How is it done?** Are particular instruments required to do it properly? Certain procedures or ways of dressing?
- **How important is each aspect of the practice?** Would the music be considered "authentic" or "correct" only if it is performed by certain people, or in a certain place, or in a certain way?
- **How has it changed?** Have the answers to these questions changed over time? For example, some kinds of music have a very different audience now than they did 20 years ago. Other types of music used to be performed in one type of place (such as a church), but are now typically performed in another place (such as a concert hall).

Don't assume that you know the answers. Do some research to make sure you are characterizing this musical practice correctly. Look for Finding and Evaluating Resources for Music Inquiries (Page 30) of information that check their facts rather than simply repeating popular assumptions. For example, some people assume that rock stars are young, but many famous rockers have continued to perform long past typical retirement age.

Once you have found the answer to these questions, you should be able to refine your original question. Rather than a vague "Why are they shaking hands?" your question should now be much more specific, for example "Why does the orchestra conductor shake hands with the concertmaster on stage at the beginning of a concert?" It's a good idea to make your "why" question as specific as possible, because the meanings of musical practices may change from one group of musicians to another. Take the time to rephrase your question so that you have a clear idea of when and where the answers you find will be relevant.

While answering the other questions, you may also have already begun to find answers to your "why" question. Try to find **at least three independent sources** that give a **cultural, historical, religious, personal, philosophical or psychological reason** for doing things that way. (An independent source is one that is not just quoting or repeating one of your other sources.) **If you find that different sources (for example, an audience member and a book) give different answers, try to discover why there are different answers, and who subscribes to each answer.**

Consider the following possible resources

- **Fan sites or educational sites** - Many types of music have fan sites or sites dedicated to educating people about the music. This often includes discussions of reasons and meanings.
- **Ask directly** - Can you ask a friend or relative who "does" this kind of music or is part of the culture that does it? Can you ask a fellow audience member or your music teacher? Does a fan site or educational site take questions?
- Published Interviews of musicians in magazines, newspapers, newsletters, or books often discuss meanings and reasons for doing things.
- **Educational performances** - Sometimes musicians will give concerts with the specific aim of educating outsiders about their music. These often feature question-and-answer sessions with the performers.
- **Concert notes and album notes** may discuss the composers' or performers' intentions or purposes.
- **Books or articles** about musical practices, written by musicologists, music historians, or ethnomusicologists, may discuss the cultural traditions, perspectives, and understandings that are tied to specific musical events.

You may discover that the reasons given for a certain practice are **musical reasons**. For example, if you ask why a particular instrument is used to provide the accompaniment, the answer may be that (in the case of the piano) a single person can easily provide a full harmonic accompaniment or (in the case of a tambura) that it provides the desired timbre (http://cnx.org/contents/f306fb29-f034-4a34-99d5-a44adf8ae813@15/Timbre:_The_Color_of_Music). The "music answer" may give you some useful insight into the music, or you may find that you don't really understand that answer right now. In either case, you can continue to pursue the "cultural-historical answer" by asking whether and how that same function is achieved in other types of music. For example, you may discover that many types of music don't need a full harmonic accompaniment, or prefer to have multiple performers provide it. Or you may find that other cultures prefer a drone instrument with a very different timbre (http://cnx.org/contents/f306fb29-f034-4a34-99d5-a44adf8ae813@15/Timbre:_The_Color_of_Music) from a tambura. Then you can ask why that particular instrument seems to be the "right" answer to that musical problem for this particular type of music.

3.1.3 Create

If you are doing this inquiry as part of a class or inquiry group, prepare a presentation for the rest of the class, as suggested in the list below. If you are not doing this formally as part of a class or group, consider whether or not one of the suggested presentations might be a good choice for some assignment that you are expected to do, perhaps for a class, for work, for a club meeting, or for a musical group that you sing or play with.

If you have no venue for sharing a creation, it is still a good idea to try to express your own understanding of what you have learned, perhaps as an entry in a private music-learning journal, or as a conversation-starter with a friend or relative. Trying to state clearly what you have learned will help you to remember it and to discover whether there are still aspects of the answer that are confusing or unclear to you.

Presentation Suggestions

- **Slide show, video presentation, or written report** - This should include the background (who, where, when, how) information, as well as the answer to the "why" question. You may also want to explain why you had that particular curiosity. If possible, include video, audio, or photos of the practice in your presentation.
- **Dramatic presentation** - This is a good choice if several people have been involved in the same inquiry. The investigators can create a drama to present to the rest of the class or group. It should dramatize the musical practice that you have learned about, in a way that makes clear who the characters are and why they are participating in that practice. Consider whether costumes, instruments, scenery, or other props are possible. Also, consider whether it would be useful to include playing an audio file of an authentic musical performance as part of the drama. If preferred, the drama can be videotaped and the videotape presented to the class.
- **Interactive role play** - In this variation on the drama, everyone present is given a role (such as audience, musicians, dancers, etc.), with those who have learned about the musical event explaining to the rest what their role is, what they should do, and why someone in that role would do that. This works particularly well when everyone can be given simple but active roles (for example, learning easy dance steps or learning when and how to encourage the "performers").
- **Music appreciation session** - You can present an audio or video of the musical practice that you learned about, giving a running commentary that points out what is happening in the audio or video while it is happening, and explaining why it is happening.
- **Musical performance** - If you like to sing or play an instrument, your presentation can include a short musical performance. Before your performance, explain how it is related to your inquiry. For example, what practice are you demonstrating? Why did you want to understand about it? How is it related to what you do as a musician or music student?
- **Musical composition or arrangement** - If you like to arrange or compose music, you can present an original composition or arrangement that demonstrates something you have learned in your investigation. You can present a live or taped performance. Before the performance, explain what you learned in your inquiry and how it is demonstrated in your creation.
- **Visual display** - Create a diorama, painting, cartoon, or other visual display related to what you have learned about a musical practice. Include a short

explanation of how this work demonstrates what you have learned in your investigation. This can be done either as a verbal explanation when you present your display, as part of a display card that includes the title of the piece and the artist's name, or as an integral part of the work (for example, as conversations within the cartoon).

3.1.4 Discuss

If presentations are being given as part of a group inquiry or class, a short discussion should follow each presentation, with the rest of the group asking questions and/or making suggestions.

If a formal presentation is not possible, consider who you might discuss your findings with in a casual conversation, someone who might be genuinely interested and who might offer useful questions, feedback, or suggestions.

3.1.5 Reflect

The following questions may help you decide where to concentrate your next inquiry:

- Did your investigation raise any other questions in your mind, about that musical culture or its practices, questions that you would like to learn about next?
- Did it raise any questions about non-musical cultural practices that you would like to learn more about (for example, questions about a religion, a national holiday, or a historical era)?
- Did it raise any questions about the music itself, apart from the culture, that you would like to learn about next (for example, questions about music theory, notation, or performance techniques)?
- Do the reasons given for doing things that way make sense to you? If they do not, did you dig deep enough to understand the point of view of those who gave the answers? If you rejected their point of view, what was it that made it seem incomprehensible or unreasonable? Are you interested in trying to better understand the other point of view, and how might you do so?
- Did you discover substantial disagreements, for example about why something is done, how it should be done, or who should do it? Do you know where each viewpoint comes from, and who holds it? Do you have an opinion as to which view is correct, and why do you think so? Would you like to learn more about the controversy?

3.2 Choosing a Publication License: Four Activities for the Creative Classroom

Summary

When students are working hard on their own creations, it is the ideal opportunity for a lesson about intellectual property. The module includes lesson plans for a class inquiry into appropriate licenses, discussion of the concepts involved, a simple post-creation choose-a-license activity, and a more-complex activity for creations that build on the work of others. The activities are appropriate for any publishable creative arts.

3.2.1 Introduction

Modern technologies have made it easy for students to get into serious trouble for overstepping the bounds of copyright laws or rules about plagiarism. But technology has also made possible a vibrant participatory culture in which all creators, including students, can choose to publish their creative works and share them in varying degrees. Understanding the options that are available for sharing and protecting intellectual property will help students make wise, well-informed decisions about both their own work and the intellectual property of others. Introducing the subject in relationship to the student's own creative work provides concrete, personally meaningful examples of the issues and encourages respect for the intellectual property of others. These activities are designed to be one aspect of an extensive creative-arts project. The module does not include a specific creative project; instead it can be used with any publishable creative work, including:

- Music
- Dance
- Drama
- Video
- Fiction and Nonfiction
- Poetry

This module includes suggestions for:

- An active-learning Activity 1: Inquiry into copyright licenses (Page 59) into the types of licenses and copyright protections that are appropriate to your project.
- A classroom Activity 2: Presentation and Discussion (Page 63) of intellectual-property issues and options.
- A basic Activity 3: Choosing a License (Page 64) activity that can be done, separately, after a creative project is finished.

- A more complex Activity 4: Sharing and building on the creations of others (Page 66) the creative work of others. This activity needs to be part of the creative process from the planning phase of the creative-arts project.

If you do not have a creative project in mind already and would like some suggestions, the following Connexions modules include activities that could result in publishable creations. (If you would like to add other Connexions modules or links to other creative-activities sites, please contact the author.)

- Inquiry into Music: Course Home (Page 3) (under construction)
- Compare and Contrast Visual Arts Lesson Plan (http://cnx.org/contents/ffd4b41b-b1da-4d58-bfd0-a024c3413db8@1/Compare_and_contrast_Visual_Ar)
- Interdisciplinary Shakespeare Art Curriculum (http://cnx.org/contents/68fdd731-56ef-41f4-9ee9-1043ac22d0bc@1/Interdisciplinary_Shakespeare_)
- GarageBand in the Elementary Classroom (http://cnx.org/contents/9c981489-3964-4d24-9991-4ab37effed6b@4/GarageBand_in_the_Elementary_C)

3.2.2 Activity 1: Inquiry into copyright licenses

Copyright law is an extensive and complex subject. Rules change with time, and also vary from one country to another. Although "all rights reserved" and "public domain" seem fairly straightforward, rules (such as what constitutes "fair use," when and how copyrights expire, and what is automatically copyrighted or automatically in the public domain) may vary from one type of work to another and from one country to another. Licenses that permit certain types of use or certain degrees of sharing, altering, and remixing, can also have different ramifications depending on the type of creative work. (For example, some rules or licenses are more relevant or useful to video creations, while others are more pertinent to protecting or sharing written works.) Your class may also be planning to enter creations in contests, display them locally or on a particular website, or submit them to magazines or other edited publication venues, all of which may constrain or affect the licensing that you would want to choose. In short, I cannot even begin to provide here all of the copyright and licensing information that might be pertinent to your project.

As the instructor, you may choose to investigate the subject and create a presentation about relevant licenses for the creative activities in your classroom. If it is feasible, however, I recommend turning this step into a hands-on, active-learning class inquiry on the subject. This should help engage students in the presentation and discussion, and will also help them learn how to find this type of information when they need it.

Inquiry Summary

- **Goals** - The students will practice investigating, thinking critically about, and presenting arguments concerning, the legal, ethical and creative aspects of intellectual property.
- **Grade Level** - Recommended for secondary and adult students
- **Student Prerequisites** - Students should possess the skills necessary to conduct an independent literature search.

- **Teacher Expertise** - Expertise in copyright law is not necessary. Be prepared to help students locate resources and to guide them in critically thinking about the usefulness and trustworthiness of the sources they find.
- **Time Requirements** - Allow at least two weeks with few other assignments, for the students to organize, research, and create their presentations. Schedule some in-class time during which the group can work on their presentations while you check in with each group to ensure that they have been doing their research and that they are critically evaluating their sources and their findings.
- **Objectives** - In response to a set of questions, each group of students will cooperate to locate relevant sources of information, critically evaluate the usefulness of each source in answering the questions, and create an accurate and well-reasoned presentation to educate their classmates on what they have learned. Students in each group will also engage with other group's presentations, asking pertinent questions and discussing their findings.
- **Evaluation** - You can assess each group's learning based on the extent of their research, evidence that they evaluated their sources or their prior assumptions thoughtfully and critically, the quality of the presentation, ability to answer questions about their presentation, and thoroughness of any written report and reference list.
- **Adaptations** - For younger or less experienced students, you can simplify the investigate task by providing a list of approved resources, or by providing copies of the resources and scheduling time for research during class when you can answer questions and help them locate what they need.
- **Extension** - Extend the activity by asking each student to choose a specific example of the reuse or reworking of a creative work to research and write about, with a focus on the effects of copyright freedoms or restrictions. Examples of possible subjects: a reworking of a famous story, such as H. C. Anderson's **Little Mermaid** or Shakespeare's **Romeo and Juliet**; the rules regarding the reproduction of a famous work of art, such as the "Mona Lisa"; or the negotiations over movie rights to a famous book, for example the Harry Potter books and movies.

Introducing the Inquiry Activity

- You will begin this activity by introducing the research assignment. Explain that the students will be choosing a publication license for the works that they have been creating, so they need to understand what the options are, and the ramifications of each option, for the creator and for others.
- You can pique interest in this activity by presenting some facts, stories, history, and/or news items that your students will find relevant to their personal and creative interests and to this class project. The list of Investigate (Page 61) is a good starting point for finding information that will get the attention of the students.
- Explain that each group will research a specific type of licensing that is relevant to your project. Tell them the date of the discussion class period, and explain that they should arrive to that class ready to give a formal presentation and to answer any questions their classmates will have about it. Hand out copies of the research

questions and your expectations for the research and the presentations (for example, minimum numbers of research sources or time limits on presentations).

3.2.2.1 Ask

Divide the students into groups. Each group is expected to research one area of interest and prepare a presentation on the answers they find, to be given during Activity 2. My suggestion is to divide the class into at least three groups and give each group one of the following: public domain; **all-rights-reserved copyright; Creative Commons sharing licenses; any other sharing licenses that are relevant to your project** (as the teacher, check into this before you make group assignments).

Questions for each group

- What are the basic rules of this type of license?
- What does it mean for the creator?
- What does it mean for the people who would like to enjoy the work?
- What does it mean for other creators who would like to make a new creation based on a work with this license?
- Give at least two good reasons for choosing this type of license.
- Give at least two good reasons not to choose this type of license.
- Does your country have laws limiting the ability to choose this license, providing this license automatically to published works, and/or providing a time limit after which the license expires? What happens to the work if the license expires? What do you think are the reasons for these laws? Do you think these laws have any unintended consequences? (Back up your thinking with evidence and/or with well-reasoned arguments created by the group or published by others, and be sure to provide proper citations!)
- What are some famous works with this type of license that are the same type of works that the class is creating (e.g. poetry, pop songs, videos, etc.)?

3.2.2.2 Investigate

Relevant resources will depend on your particular project, but here are some suggestions to help get you started.

Web Resources

- The Music, Movies, and Computer Software Copyrights (http://nationalparalegal.edu/public_documents/courseware_asp_files/patents/Copyrights2/Music.asp) page published by National Paralegal College provides a short summary of the subject.
- The Copyright for the Rest of Us (http://cnx.org/contents/56341ee3-3da2-43f2-8c66-8ada8bf99fee@2.1/Copyright_For_The_Rest_Of_Us)

course in Connexions is intended to be an introduction to the subject for high school and college students.
- The website has information about open licenses, including videos introducing the idea, and detailed information about each type of license.
- Stanford University Library (http://fairuse.stanford.edu/) provides information about both public domain and fair use of copyrighted materials.
- The National Association for Music Education (***http://musiced.nafme.org/***) website has a copyright center with a great deal of information aimed at helping music teachers navigate copyright issues pertaining to student performances and recordings.
- The Music Publisher's Association (http://www.mpa.org/) website has a copyright resources center featuring a guide to researching the publisher or copyright holder of a piece of music.
- The Public Domain Project (http://www.pdinfo.com/index.php) is a source for public domain and royalty-free music

Books

- James Boyle's **The Public Domain: Enclosing the Commons of the Mind** (2008, Yale University Press) explains the implications of various aspects of copyright law and their impact on culture and creativity, and makes good arguments for a strong and healthy creative public domain.
- Lawrence Lessig's **Free Culture** (2004, The Penguin Press) recounts the history of intellectual-property law, including some very instructive and engaging stories which students might enjoy. He also details the consequences of current laws and makes a well-reasoned argument for policies that allow, encourage, and reward creative activity by individual citizens rather than favoring powerful media corporations.

3.2.2.3 Create, Share, Reflect

As a group, the students should create a presentation that will clearly relate to the rest of the class the most important points that they have learned in their investigations. You may want to also require a written report that includes their answers to all of the research questions, and a reference list that includes all of the resources they used. The type of presentations you permit will depend on your goals for this activity as well as the equipment available to you and your students. You can require a particular type of presentation, or give groups a choice of format. Here are some suggestions for possible formats:

- Poster or other visual presentation of their findings, with students taking turns speaking about the most important points
- Powerpoint or other computer-based slide presentation, with student taking turns speaking about the information on the slides
- Audio/video presentation or web tour, narrated by the group
- Blackboard/whiteboard/overhead-based lecture with handouts, prepared and presented by the group

- Mini-drama, acted out by the group, illustrating the most important information they have learned, accompanied by a more formal written report to be turned in to you
- Poem, song, story, or visual work featuring what they have learned, to be presented and explained to the class, accompanied by a formal written report to be turned in to you

Groups will **share** their presentations and **reflections** in the presentation/discussion activity (in the following section).

3.2.3 Activity 2: Presentation and Discussion

If the class did not do the inquiry activity, you will need to research and prepare a presentation that gives an overview of the types of licenses that might be appropriate for the students' creations in Activities 3 and 4.

Activity Summary

- **Goals** - The students will learn about various options for licensing creative works, including the consequences and legal ramifications of each and the differences between them.
- **Grade Level** - Recommended for secondary and adult students
- Student Prerequisites - Students should be capable of thinking critically about law, ethics, and consequences as they relate to intellectual property.
- **Teacher Expertise** - Expertise in copyright law is not necessary, but the discussion will be more lively if the discussion leader is prepared with facts, points, and stories that are relevant to the students' creative and publication interests.
- **Time Requirements** - Allow 15-20 minutes for each group's presentation. If the students did not do the inquiry activity, you can prepare a 20-30 minute overview of the information you have gathered. Also schedule time for questions and group discussion following each group presentation (5-10 minutes) or after your presentation (15-30 minutes).
- **Objectives** - The students will discuss a variety of licensing options that are relevant to their creative work, including the ramifications of each for the creator and for others.
- **Evaluation** - You can assess student learning based on engagement in the discussions of other people's presentations, including asking thoughtful questions and making good points in discussions. Alternatively, you may ask students to create notes, charts, or diagrams that organize the information they learn from each presentation.

Procedure

- Use clocks, timers, or reminders to keep each group to its allotted presentation time.

- After each presentation, point out to the class the aspects of the presentation that you particularly liked. Then, if the presentation did not include key points that you want emphasized, ask the group to also address those points. For example, "You didn't mention why a creator might choose this type of license. Can you tell the class what you think about that?"
- Ask the class for any questions they have about the group's researched subject or presentation.
- If the class does not have enough questions to start a good discussion, begin directing thought-provoking questions to the students who did not make the presentation, for example, "Do you think the laws they told us about should be changed?" or "Would you choose this license for your project?" Ask students to give reasons for their opinions, and encourage (polite, respectful, thoughtful) discussion of any disagreements among class members. If all the students agree, try to play devil's advocate; for example if students all agree that music should not be copyrighted (or that music copyrights can be ignored), ask them whether and how good songwriters should be paid.
- If there is further time for discussion, you can ask the students what the effects might be if that license was not available, or if every work was automatically published under that license.

3.2.4 Activity 3: Choosing a License

This activity should be done after the students have completed Activities 1 and 2 (or similar introduction to creative intellectual property concepts and law). Before this activity, students should also have created publication-worthy works, with your guidance as a creative-arts instructor (see ***preparation*** section if you would like some suggestions.). A process of constructive criticism (http://cnx.org/contents/c14a0ab9-43ba-4d9b-82c5-75f44acce8b5@2/Providing_Constructive_Critici), reworking, and editing is strongly recommended so that students can confidently share their work with the rest of the world. However, students should not be required to publish if they are not comfortable doing so (see the activity adaptation below).

Activity Summary

- **Goals** - The students will learn about the process of licensing and publishing creative intellectual property.
- **Grade Level** - Recommended for secondary and adult students.
- **Student Prerequisites** - Students should have completed, or be close to completing, a creative work of publishable quality. Students should also have completed Activities 1 and 2, or similar introduction to publication licenses.
- **Teacher Expertise** - The activity leader should understand the relevant laws and implications of the publication licenses under discussion, as well as any relevant district, school or publication-venue rules regarding student publications.
- **Time Requirements** - If the students have completed Activities 1 and 2, you should not need to schedule much class time for this activity.

- **Objectives** - Each student or group of students who has finished a publishable creative work in the class will choose an appropriate publication license and publication venue for their work.
- **Evaluation** - You can assess whether licensing and publication options were considered thoughtfully and procedures were followed correctly. (But allow students free reign to make their own choices without fear that it will affect their grades.)
- **Adaptations** - If some students or groups wish to publish and others do not, provide an alternative path for non-publishers to finish the activity; for example, they might write a short report listing the steps that they would need to take to publish their work. If you feel that many or most of the students in the class are not ready to develop and publish creative works alone or in small groups, you may want to undertake an entire-class project that results in a publishable work (for example, a video) that all students have helped to create, and for which the class as a group will choose a publication license.
- **Extensions** - For complex creative endeavors that are collaborations by groups of students (for example, a video might include writers, actors, photographers, costume designers, and editors), make sure the discussions and activities include appropriate consent and attribution for everyone involved. For a more involved exploration of publication licenses, or if students wish to build on each other's work, see Activity 4.

Preparation

1. Lead the class in creating work that they will be proud to publish and share. When you introduce the creative activity, emphasize that publication, or planning for publication will be part of the process. Discuss the available methods and venues for publication. (For example, as part of a school district art expo or literature contest, in a school magazine, in a newsletter created by the class and distributed to parents or other classes, or in public or private online spaces.) Also make sure students understand your expectations concerning what constitutes a publishable work, as well as any widely-accepted benchmarks of quality.
2. Design the creation part of the project so that it includes steps for planning, sketches, revisions, edits, or other steps that result in polished, high-quality work.
3. Be sure to offer your own critiques and suggestions well in advance of the final product, and give the students sufficient time and space to respond to them. If the students are mature enough to offer constructive criticism (http://cnx.org/contents/c14a0ab9-43ba-4d9b-82c5-75f44acce8b5@2/Providing_Constructive_Critici) of each other's work, this can also be a good step to include, again early enough that the creator has plenty of time to consider critiques before creating the final work.
4. When the works are complete or nearing completion, discuss licenses, as outlined Activity 1: Inquiry into copyright licenses (Page 59).

Procedure

- Tell students that they may publish their works if they like, and ask that they wait until you have reviewed their proposal to make sure that everything is in order. Remind them of any rules for contests or publication venues that are relevant to your class. In explaining this step, make it clear that each student or group of students that has created a work may choose a license for it. Nobody is required to publish. Students are not required to choose a particular license because that is the one they researched, or because others in their research group are choosing it. However, if any creation is a group effort, everyone in the group must freely agree to publish using a particular license, or else the work cannot be published. Tell groups to speak to you if they are having trouble reaching an agreement. They may ask you or another student to act as arbitrator for their discussion, or they may choose to write up a report explaining their unresolved disagreement. If there is time in the course schedule for it, and if the students can conduct a public disagreement maturely and without putting undue social pressure on any of the participants, you may want to ask the group to present their problem to the class for discussion. Be sure to point out that these types of disagreements can also happen when creative professionals publish their popular works.

- You can schedule class time for discussion, or assign the discussion and choice process as home work.
- Each student or group should submit a short report listing their chosen license and their reasons for it (or their group difficulties in choosing a license).
- Provide feedback, pointing out any issues you feel the student may not have considered. Then allow students who wish (and groups who have reached an agreement) to publish.
- As a final step, students should submit to you either a copy of the work with the licensing and copyright notices properly attached, instructions for easily viewing the published work (for example a web link to a work published online), or a short report listing the steps they would have taken to publish the work properly.

3.2.5 Activity 4: Sharing and building on the creations of others

Activity Summary

- **Goals** - The students will learn about the artistic, legal, and ethical aspects of borrowing from and contributing to the body of creative works that is part of their culture, through active learning that provides an opportunity and concrete, personal example of participating in this process.
- **Grade Level** - Recommended for secondary and adult students.
- **Student Prerequisites** - Students should be mature enough to give a project the thorough attention that published work deserves. In addition, it is very important that students doing this activity are capable of understanding and respecting the legal and ethical boundaries involved.
- **Teacher Expertise** - It is recommended that the teacher be well-versed in the creative art that is the focus of the activity. It is also strongly recommended that the teacher be familiar with or capable of identifying the copyright status of any published work that the students use for this project.
- **Time Requirements** - Schedule in-class time for students to work on this project if they are working in groups, if you want them to present their works-in-progress

to the class, or if they need classroom resources and equipment in order to locate useful published works or to work on their own creations. Assign a due date that allows sufficient time for the creative process and for students to work on the project outside of class. If possible, schedule time for students to present their finished works to the class.

- **Objectives** - Each student or group of students will choose a published work from which they would like to borrow elements or ideas. They will then develop a plan for creating a publishable original work that substantially borrows from the published work, in accordance with any relevant intellectual property laws and cultural mores. Once the plan has been approved, each student or group will then create the planned derived work.
- **Evaluation** - Evaluation and feedback at every step are strongly recommended for this project. The teacher should evaluate/approve the choice of borrowed materials, the planned use of the borrowed material, and the licensing and publication plans for the new work before the creative phase of the project begins. An evaluation of the work-in-progress, including your concrete recommendations and expectations for finishing the project is also recommended, as well as a final evaluation. The rubric should include your usual standards for grading creative works, as well as assessment of the students' success in creatively, conscientiously, and legally using the borrowed work.

Materials and Preparation

- Before doing this activity, students must have an understanding of the legal issues involved. Activities 1 and 2, or similar preparation, are strongly recommended. If you are planning to do this activity, make sure that the students come away from those activities with a clear idea of what types of alteration, derivation, or borrowing, are allowed under each type of license.
- A classroom discussion of the cultural mores and ethical issues involved in borrowing from creative works is also strongly recommended. These usually go beyond legal issues into what people generally believe to be "good" or "bad" types of borrowing. For example, in the U.S. it is generally considered unethical to borrow from the title or concept of a popular work in order to confuse audiences into buying your work instead, while borrowing from a popular work in order to create a clever parody of it is generally approved. Such issues vary greatly from one culture to another. If students will be borrowing from works within their own culture, a simple classroom discussion may suffice. If some are considering borrowing from the works of other cultures, they should become acquainted with the issues that might be involved, in order to avoid giving harm or offense. If your classroom is sufficiently multicultural, again a classroom discussion might suffice. If not, you may want to assign relevant reading or research.
- Prepare for this activity by planning and preparing for a creative project that is appropriate for your classroom. Consider not only what you want the students to learn from the creative process, but also what you want them to learn from the process of working with material created by others. For example, a student who harmonizes a borrowed tune will be learning a different lesson about creating music than a student who writes a new tune for a borrowed text. Set the parameters for the assignment (the types of creations, borrowings, and

alterations you expect or will permit) to align with your creative-arts learning goals.

Procedure

- As part of the preparatory activity, have each student or group propose a project. The formal, written proposal should identify a portion of a published work that the student(s) will be modifying (for example, a soliloquy from a Shakespeare play) or borrowing (for example the harmony "changes" of a jazz tune), the specific plans for using it in a new work (for example, creating a parody of the soliloquy or a new tune to go with the jazz harmonies) and reasonable proof that the work can legally be used in that way (for example, evidence that the soliloquy was published before 1923 or that jazz "changes" are not considered copyrightable).
- Review the proposals carefully, making sure that the works to be created are appropriate for your course goals, within the students' capabilities, and clearly legal. Require revised proposals if necessary.
- If a proposal raises other issues (for example, if the proposed work is legal but could be considered an act of cultural appropriation), be sure to address those issues also as early as possible in the planning process.
- Once the proposals have been approved, provide a time frame and support for the creative process that is in line with the way your class typically operates.
- It is not necessary, but you may want to include the option of publishing the derived works. If so, once the creative process is well underway, follow the steps outlined in Activity 3 for publishing student-created works.
- If at all possible, schedule time for students to share their creations with the class. Performances or displays should include appropriate attribution of the borrowed material and a short explanation of how it was incorporated into the new work.

Chapter 4 Aural Knowledge

4.1 Listening to Unfamiliar Music: An Inquiry Module

Summary

People typically develop a great deal of tacit knowledge about music simply through hearing it often, so a lack of exposure to a particular music style or tradition can create a significant barrier to understanding and appreciating it. Attentive repeated listening to unfamiliar music can help the novice overcome this barrier. The module includes suggestions both for independent inquirers and for leading a classroom activity.

4.1.1 Introduction

One of the main reasons that you enjoy your favorite music is that you can understand it simply by listening to it. You don't have to make any conscious effort to make sense of what is going on, just as you don't have to make any conscious effort to understand someone who is speaking in a familiar language with a familiar accent. But if the language or accent are unfamiliar, you may have to work harder at comprehension, or may fail to understand at all. Your aural (ear-based) understanding of music is related to, but separate from, any formal understanding of music theory or notation, just as your ability to understand spoken language is related to, but separate from, any formal knowledge of grammar and writing. The purpose of this module is to help you (or your students) **develop a better aural understanding of an unfamiliar type of music**.

This module is a guide to creating your own inquiry into the music that interests you. That means that it focuses on the process of learning how to listen to an unfamiliar music, rather than on providing you with information about a specific kind of music. The suggestions below are general; you will choose the music that you want to explore, based on your interests or learning goals. You will find below:

- Guidance in Ask: Choosing the music to study (Page 70) to study.
- Suggestions for Aural Investigation: Finding answers using your own ear (Page 71).
- Suggestions for Formal Investigation: Finding answers using other resources (Page 74) the music of interest and furthering your inquiry.
- Sharing and Reflecting on your Inquiry (Page 76) on individual inquiries
- Lesson plan information for teachers and facilitators who would like to Listening and Discussion as a Class Activity (Page 76) in this exercise.

4.1.2 Ask: Choosing the music to study

This module does not include specific suggestions for which music to study. The assumption is that you have already decided that there is a type of music that you want to appreciate and understand, but that is so unfamiliar that you can make little sense of it right now. It is difficult to get satisfying, useful answers, though, when you start by asking general questions about a whole genre or type of music. You'll make more progress if you pick one or two pieces and begin by asking specific questions about them. If you have not already picked out specific pieces or recordings, the following checklist may help you choose a focus for your study.

- First, narrow your focus of interest as much as possible. For example, "Classical music" or "Chinese music" are too general. You might find a focus based on what you like (vocal music? flute? strings? sweet melodies? powerful rhythms?), or based on your reasons for wanting to learn about it (your friends enjoy going to the opera? you bought a bamboo flute when you visited Beijing?)
- Don't get overwhelmed. Limit your initial study to one piece, (maybe two if you get bored easily or if the variety will help you listen more carefully). If you are studying a composed style of music, you might want to listen to different recordings of the same composition, to get some idea of the variation in performances. If you are studying an improvised style, just stick to one or two specific recordings. Although you will probably want to enjoy live performances, too, choose recorded music for study, so that you can hear the same music repeatedly.
- Try to find high-quality recordings of good performances, so that everything that is supposed to happen in the music is clearly audible in the recording.
- If dancing or other activity is typically an integral part of a performance (for example, ballet, opera, samba or capoeira), a video recording can provide a great deal of insight into how the music is perceived by those who create it. Even when that is not the case, a video of a performance can put the music into context for you, help you understand how the instruments create the sounds, and show you how knowledgeable listeners typically react to the music. If the sound quality of the video is poor, consider alternating between studying the video and a high-quality audio recording.
- Choose pieces that have some appeal for you, that you will be willing to listen to carefully and repeatedly. If you are choosing music for a group, consider what they might enjoy. If you're not certain, consider assembling several possibilities and letting the group choose.
- Starting with the "great works" or core repertoire of a tradition is not necessary. If the fusion, pop, "world music", tourist, or children's versions of a tradition are more appealing and easier to understand, it may make sense to use that as a starting point. Most people find it more enjoyable and rewarding to study the masterworks of a tradition after they have developed an ear for the music.

The main question you will be asking "how can I begin to make sense of this music?"

4.1.3 Aural Investigation: Finding answers using your own ear

When musicians talk about **ear**, what they are really discussing is the part of your brain that makes sense of what you are hearing. It normally does this without any conscious effort, and most people are not even aware of how much their ear understands. The "rules" that a piece of music follows - rules about what types of sounds are good, how they should fit together, and how a piece should start, progress and end - are actually quite complex. You don't have any trouble deciphering familiar musics, though, because your ear already knows the rules. You picked them up just as you picked up the rules for speaking your language, just by hearing it often, in context. You are most likely to notice "ear" when it fails you, when you hear a piece of music that makes no sense to you. Because you don't understand how sounds are supposed to be organized in this kind of music, it may sound boring, foreign, exotic, annoying or noisy.

So the first few times you listen, your main goal is to find some points of reference, things that you can actually hear in the music. These will be based on the knowledge that you already have about music, including:

Listen with all the knowledge you already have

- **Ear-based knowledge** - Even if you have no formal ear-training, you can make use of the aural knowledge you have about more-familiar types of music. Does the recording sound at all like any of the music you already know and like? What specifically sounds different? See the ***what do you hear?*** list for suggestions.
- **Movement-based knowledge** - Some of your intuitive knowledge about music may not be in the "ear" part of your brain, but instead is in the part of your brain that controls your movements. If you are a dancer, or if you like to clap your hands, tap your feet, or move to your favorite music, then you may find that letting yourself move with this unfamiliar music - dance, clap, conduct, etc. - actually helps you understand the music, and also helps you locate the elements that you do not yet understand. (For example, I find that the easiest way to check whether I am "getting" the rhythm of a piece is to try to conduct along while listening.)
- **Formal music knowledge** - This is an exercise in developing intuitive, ear-based understandings, so it is not necessary to have formal knowledge about music theory and notation. But if you do, by all means, make use of it! You may find that your formal understandings are not that helpful - for example, your knowledge of major and minor scales may be inadequate when trying to listen to music based on ragas - but exploring exactly how and where and when they fail will help you understand how this music is different and help you focus on what to listen for.

- **Instrument-based knowledge** - Again, this is not necessary for this activity, but if you do know how to play an instrument (or sing), you may want to get out your instrument and either try to play/sing along with the recording or try to reproduce parts of it immediately after listening to it. Can you reproduce the timbre in the recording? How is it different from the timbre that you usually use? Are there stylistic elements (such as ornaments or articulations) that you have trouble reproducing because they are unfamiliar? Is the tuning in the recording different from your normal tuning? Do the notes used seem to belong to a scale, raga, or mode that you know? If not, how are they different?
- **Cultural knowledge** - Where does this music come from? What is it for? Who creates it? Who enjoys it? What are their lives like, and how does music fit in? Again, you do not need to know the answers to these questions, but anything you do know may help you understand the music.

As you study a piece, **create a journal** or record of what you hear, what you want to listen to more carefully next time, guesses about what is going on in the music, reactions, and questions. It may be difficult at first to come up with descriptions, but the struggle to write something that makes sense to you is an important step in making sense of the music. Pictures and diagrams can also be part of your journal. You can use any music notations you know, or make up your own. Choosing words, phrases and pictures that describe elements and characteristics of the sound will help you to think about them, listen for them, remember them accurately, and discuss them with others.

You won't be able to listen carefully to everything at once. If the piece is long, you might want to start with just your favorite section of it. Start by listening to the characteristics or elements that are most interesting or obvious to you. Save more challenging elements for later. You can think about the music in any way that is useful to you, but if you have no idea where to start, here are some suggestions:

What do you hear?

- **Text** - Are there sung or spoken words? Can you understand the text? If not, why not? Is understanding the text important to you? If you can understand the text, can you relate to what it is saying? How different is it from the texts of your favorite songs?
- **Meter** - Can you feel a steady beat? Are beats organized into stronger and weaker pulses? Are they all the same length, or is there a pattern of shorter and longer beats? Does the pattern seem too subtle, too slow, too fast, or complex for you to follow? Is it possible that the music moves forward freely, without reference to a predictable beat? How is it different from the beat in familiar kinds of music?
- **Rhythm** - When do notes begin and end, (on a beat, in between beats, at irregular intervals)? How long do they last (one beat, many, an indefinite length)? Do they follow each other quickly or slowly? Can you hear specific rhythmic ideas or patterns? How complex are the rhythms? How repetitive are they? Do different parts (different instruments or voices) have the same rhythms or different ones?
- **Mode** - Do some of the sounds have pitch? If so, do they slide up and down, hitting all of the possible pitches, or does the music only use specific pitches in each range? Does it use a lot of different pitches that seem very close to each

other, or only a few pitches that seem to be spaced far apart? Do some pitches seem more important than others? Do you think this music is using the same set of notes (the same scale, mode, or raga, for example) as familiar musics? If not, how would you describe the difference?

- **Tuning** - Do pitched notes seem "in tune" or "out of tune" by the standards of more familiar music? If the tuning is noticeably different, how would you describe the differences?
- **Articulation and ornaments** - How does each sound begin and end? (For example, do notes seem to be separate, or do they glide into each other? Are they cut short, or do they die away slowly?) Is each note a single pitch, or does it include little ornamental variations? What do the variations do to the pitch (does it slide, waver, bend)? Do they happen at the beginning or end of a note, or all through it? Do they connect one note to the next?
- **Timbre** - What adjectives would you use to describe the tone quality of the sounds you hear (for example, squeaky, nasal, warm, resonant, fiery)? What do the sounds do (crash, flow, clang, buzz, echo)? Are the instruments that make the sounds familiar or unfamiliar? Can you name them or picture them? Are the sounds they make like any instruments in your favorite musics? How is the tone quality different from what is familiar to you? If there are singers, is the quality of the voice very different from the voices in your favorite musics? If it is noticeably different, how would you describe the difference?
- **Range** - Does the sound of the music seem higher or lower than you are used to, or is it in a range that is comfortable and familiar? For each specific instrument (or voice) that you can distinguish, do you hear it playing only high notes? Only low notes? A wide range? Does it sound as if the instrument (or voice) is near its upper or lower limit, or in the middle of its range?
- **Texture** - Are there multiple lines or parts going on at the same time? Can you tell what instrument (or voice) is creating each part? What role does each part have in the music, and how do the parts fit together? Which parts catch your attention, and which seem to be supporting/accompanying parts? Does the piece include recordings of sounds such as traffic or ocean waves? Does it include recorded samples of music, and if so, what do these contribute to the piece (for example, in terms of rhythm, meter, harmony, timbre, and so on)?
- **Harmony** - If there are multiple pitched parts going on at the same time, do the pitches interact with each other to form harmonies? Are there two notes at a time? Three or more? By the standards of the musics you like, do they seem harmonious or discordant? Do you seem to hear changing chords that direct you to an expected ending chord (functional harmony)? Are any of the parts unchanging drones? How different is this from familiar musics?
- **Small-scale form** - Are there pauses, rests, ebbs and flows, or sudden bursts in the sound that seem to organize it into ideas, motives, themes or phrases? Are there any rhythms or melodic ideas that are repeated often? Are they exactly the same with each repetition, or do they change? If they change, how do they change? Do individual ideas overlap each other, flow seamlessly into each other, or happen one at a time with pauses between? How easy or difficult is it for you to follow the way the music is organized from moment to moment?

- **Large-scale Form** - As the piece develops, do you hear major changes that seem to divide the piece into sections? How many sections are there? Are they all different, or do some seem to be a return to an earlier section? What is it that marks the different sections: changes in rhythm, instruments, range? Is it easy for you to recognize sections (for example, verses and refrains of a song) or difficult?

Remember, these are just suggestions to get you started on your exploration. There is no expectation that you will hear all of these things or discuss all of them in your journal. Start with the easiest ones, and, for the moment, ignore anything that does not make sense or seems too difficult. **If you are still drawing a blank and don't know where to start, listen to a favorite familiar piece, and see what you can write about that.** What draws your attention? Why specifically do you like this piece? What are your favorite parts, and how would you describe them to a friend? Then listen to the unfamiliar piece again and compare it directly to what you said about the familiar piece.

4.1.4 Formal Investigation: Finding answers using other resources

After you have listened to the music a few times, and have begun to identify the things that you can hear, the things that make sense to your ears, and the things that puzzle you, you may have some questions that could be answered with a little bit of research. When you feel ready to find out what other people hear in this music, and how they discuss it, try the following:

Suggestions for locating useful information

- Can you find any **commentary about this particular piece**? Commentary on a piece by knowledgeable musicians or critics can be extremely useful. Note the vocabulary they use to discuss it. Look up the definitions of words and read any background information (for example, about the composer or the genre) that interests you. Listen to the piece with their comments in front of you, and see if you can hear any of the features they are discussing. It can be a challenge to connect words on a page with sounds you hear. If you are uncertain whether you understand a term, look for other pieces that are also described using that term. Listen to them and see if you can locate the point of similarity.
- If you can't find any commentary about the piece, can you find general **information about the composer or performer**? This can also provide you with useful terms and context. Be careful, though: Just because most of a composer's work is Latin jazz, classic ragtime, or microtonal doesn't mean this particular piece is! Read up on terms that interest you, and then look for and listen for any clues that they might be useful for describing the piece you are studying.
- You may be able to find commentary written by **someone who shares your musical background**. You may also be able to find commentary written by **the people who make and enjoy this music**. Seeking out both of these perspectives will give you multiple possible routes to understanding the music.

- Remember to **follow your own interests**! If the concept of microtones fascinates you, then read all about it. If it seems difficult or boring, skip it for now and pursue a different aspect of the music that does interest you.
- If at all possible **discuss your interest** with others who share it. Ask your friends about their musical interests. Go to live performances and strike up conversations when the musicians take a break. With some luck, you will find someone who knows more than you do and enjoys discussing it. Serious enthusiasts may even be happy to listen to their favorite recordings with you and provide commentary about what they are hearing.
- If the music has a sung **text**, and you cannot understand the words, either due to the language or the singing style, it may be very helpful to find a copy or translation of the text. If the music does not have a text, but is meant to tell a **story** (for example, the music for a ballet), learn the story.
- If the music was created for a **context** that is unfamiliar to you (for example, music for a religion that you know little about, or music that was part of a protest movement in another country), you may find it very helpful to read a little bit about the general context and how the music fits into it.
- **Take notes** in your journal on useful definitions and information that you find, so that you can refer to them easily during your listening sessions.

After you have done some research, you will want to listen to your chosen music again, to see whether the new orientation helps you hear and understand what is happening in the music. If so, you may develop new questions, leading to a new cycle of research and listening. If you do not feel that your research is helping you listen more knowledgeably, you may want to try taking a different direction; look over the research suggestions again, or get different suggestions from someone familiar with the genre. Or you may prefer to put away your journal for a time and simply listen to the piece so many times that it becomes very familiar and predictable. Then get your journal out again, and describe what you hear now, and how you keep track of the way the music develops, and see if this leads to some interesting insights or questions to research. In either case, at some point, you will be ready to pick a new piece to study.

Continuing your study with new pieces

- You will progress more quickly if you choose a related piece, for example something in the same style, same genre, same composer or performer. If you have become interested in a particular aspect of the music, you may even want to choose something, for example, in the same raga, same meter, or same form.
- If you feel you have made a lot of progress, you might want to choose a more challenging piece. If you're not sure whether you are making progress, try choosing something related but a little less challenging. If you find yourself becoming frustrated, remember that the learning curve is steepest at the beginning.
- Always keep your goal in mind when choosing music. What is it you would like to get out of this music, and why? Search for pieces that sound like they are, or that your research suggests are, good examples of what you want to hear and understand.

- Continue making notes about your observations, questions, and interests in your journal. As well as following a similar procedure to the first piece, compare each new piece directly with the pieces you have already studied. In what ways does it sound the same or different?

4.1.5 Sharing and Reflecting on your Inquiry

If you are pursuing this inquiry on your own, you will find it very useful to bring in others for the "share" step. Taking care not to be a nuisance, seek out teachers, friends, and relatives who like this music and would enjoy listening to and/or discussing it with you. Share with them one or two of the things that have caught your ear as you listened to the music, and listen carefully to what they say in response. Attend live concerts of the music, looking for a chance to hear what others say about the performance and compare it to what you are hearing. If the chance presents itself, ask the performers or other audience members one or two well-thought-out questions that might help you gain insights that are eluding you in your solitary listening.

When you feel you have gotten what you can from this inquiry, here are a few useful suggestion for reflection:

- Are you still interested in learning more about this kind of music? If so, what aspect of it would you like to learn more about, and how might you learn it?
- Are you satisfied with the progress you have made in understanding this music? If not, how might you change your investigation so that it is more helpful?
- Have you become more interested in another type of music, or another aspect of music?
- What types of music knowledge, and what aspects of the music, were most accessible to you, and how can you use them in future music-learning projects?
- What types of music knowledge, and what aspects of the music, were most difficult for you? Do you want to tackle any of these difficulties now (take them one at a time!), and if so, what might help you do this?

4.1.6 Listening and Discussion as a Class Activity

Lesson Plan Information

- **Purpose**- To give students a framework for, and practice in, understanding and discussing unfamiliar styles of music, using their listening skills and their knowledge of the basic elements of music.
- **Objectives** - Presented with aural examples, students will identify similarities and differences between a familiar and an unfamiliar musical style, using appropriate music terms.

- **Grade Level** - Recommended for students of any age who have the appropriate prerequisites.
- **Student Prerequisites** - Students should have some familiarity and facility with the music and cultural terminology that you want them to use during the discussion. Prior practice in discussing what they hear in a more-familiar style of music is strongly recommended. (See the materials and preparation section below for details.)
- **Teacher Expertise** - The teacher should have sufficient listening skills and knowledge of the terminology to guide the discussion when students are not certain what to listen for or how to describe it. If you are not trained as a musician and are doing this lesson as part of a group inquiry with the instructor acting as co-learner, you may wish to either invite a musician or music teacher to assist with this activity, or study some useful music concepts, as part of your inquiry, before doing this activity. (See the materials and preparation section below for ideas.)
- **Time Requirements** - One class period of 45-60 minutes that includes at least two cycles of listening-and-discussion, or two or three 20-minute sessions of one listening-and-discussion cycle each.
- **Evaluation** - May be based on any combination of: active participation in the discussion; written essay summarizing the discussion; listening "quiz" (oral or written) in which the student listens to a new example in the unfamiliar style and discusses it.
- **Music Standards Addressed** - National Standards for Music Education (http://www.nafme.org/) standards 6 (listening to and describing music) and 9 (understanding music in relation to history and culture).
- **Other Subjects Addressed** - This inter-disciplinary activity also addresses social studies goals concerning the understanding of geography, culture, and perception, for example U. S. National Geography Standard (http://education.nationalgeographic.com/education/standards/national-geography-standards/?ar_a=1) 10 (The Characteristics, Distribution, and Complexity of Earth's Cultural Mosaics).
- **Extensions**- Present another unfamiliar tradition and have the students discuss its similarities and differences both with their own music and the tradition just studied. Students in a music class may also want to try to learn a piece or two from the unfamiliar tradition, performing it in an appropriate style; or borrow phrases, ornaments or ideas for improvisations; or include stylistic elements in their compositions.

Materials and Preparation

- If students are not already practiced in discussing what they hear in a piece of music, it is strongly recommended that you precede this activity with several opportunities to practice discussing more-familiar musics. If appropriate, ask the students for suggestions. This will engage their interest and help them develop as a discussion group before introducing more challenging listening.
- If introducing correct terminology is part of the lesson goal, decide beforehand which terms you will introduce. Terms from the local musical culture? From the culture that produced the music? Students do not need to be familiar with terms

for all of the elements of music; you may choose to focus on just a few. See ***What do you hear?*** for a list of elements that should be useful in this discussion. If the terminology is unfamiliar to the students, you may want to introduce it as a separate lesson before attempting listening discussions. (See, for example, lesson plans on Meter Activities (http://cnx.org/contents/5da551d5-ba8e-43ae-a56b-2c6721ab8ecb@9/Musical_Meter_Activities), Timbre Activities (http://cnx.org/contents/a33c4983-e1ed-4871-97f9-b3c32342b385@7/Timbre_Activities), and Rhythm Activities (http://cnx.org/contents/eb39391c-0920-4558-b10c-69cab46ecda3@12/Simple_Rhythm_Activities).)

- Particularly if this lesson is part of a social studies or interdisciplinary unit on a country or culture, you may want to introduce some of the concepts and terms that are used within that culture to describe the music. Again, it may be best to do this in a separate lesson before this listening lesson (See, for example, Caribbean music: Calypso and Found Percussion (http://cnx.org/contents/e4efcd52-7b16-43ab-bc0f-c0287677c9c4@10/Caribbean_Music:_Calypso_and_F), gamelan dance activity (http://cnx.org/contents/af32068a-2be0-4077-9518-6c836831f14b@6/Coordinating_Music_and_Dance:_), and Story and Place: Lessons from Australian Aboriginal Storytelling (http://cnx.org/contents/f42c6e7c-6c29-43d2-8cd6-33df639f3540@6/Story_and_Place:_Lessons_from_).) You and the students may also be able to make connections between other things you have learned about a culture (for example, religion, language, festivals, history, politics, philosophy, or geography) and what you are learning about its music.
- If the students have not seen any information about the culture that produced the music, you may want to prepare a short introduction, and gather materials such as maps, pictures, or story books to accompany your introduction.
- You will need the equipment to play the audio or video recordings for the class.
- Choose the pieces you will play, and be prepared to locate and start each recording quickly.

Activity Procedure

1. Play one of the recordings
2. Ask the students to describe what they heard.
3. If they don't know what to say, ask them to describe specific elements. What is the rhythm like? The vocal timbre? Other timbres and texture? The melody? (See notes on materials and preparation, above)
4. Gently discourage observations that are simply about preference (such as "I don't like it" or "it's pretty") by reminding the students that this discussion is about hearing what is in the music, not about preferences. (If it seems appropriate, you may want to discuss musical preferences at another time as part of a social-studies unit on culture and identity.)
5. Students who are having trouble articulating what they hear may find it easier to describe how the piece **is different from** a familiar music.
6. If their descriptions are understandable but do not use the proper music terms, you may want to introduce or remind them of the correct vocabulary, but **try to avoid telling them what they should have heard**.

7. When students make good observations, you may want to list them where all can see, such as on a classroom board, to serve as a record of what the class has heard and also as examples of what good listening-observations look like.
8. After an initial attempt at discussing the piece, have the students listen to **the same piece again**. If there is a particular element that you feel has not been discussed adequately (such as rhythm), remind them to listen closely to that element this time.
9. Continue the discussion, and add a new question: What did they notice this time that they did not notice the first time?
10. If you feel the students have discussed the piece to the extent that they are capable, you can introduce another piece, following the same procedure.
11. When appropriate, remind the students not to make generalizations about a music genre or tradition from just one or two examples. Familiarity with many pieces is necessary to develop a more general picture. This exercise is about developing the skills to listen so that they can develop that familiarity (with this genre, or any other) if they wish.

4.2 Four Inquiries in Constructive Music Criticism

Summary

Teachers and students can learn to give more useful constructive criticism by practicing on musical offerings that are personally relevant and interesting. The goal of each inquiry is to identify a problem area and improve it.

This Inquiry into Music: Course Home (Page 3)-style module provides suggestions for a number of ways to practice giving constructive criticism, including:

- Critique your own performance (Page 80)
- Critique your own composition or arrangement (Page 81)
- Constructive criticism for a friend, classmate, or band mate (Page 81)
- Critique of a professional performance (Page 83)

Constructive criticism is fundamentally different from the type of professional criticism that has the purpose of letting people know whether or not they would enjoy a particular concert, movie, or book. The purpose of constructive criticism is to help someone improve. (See Constructive Criticism (http://cnx.org/contents/c14a0ab9-43ba-4d9b-82c5-75f44acce8b5@2/Providing_Constructive_Critici) for a thorough discussion of the subject.) So for each of these exercises, the sign that you did a good job will be noticeable improvement.

4.2.1 Critique your own performance

The purpose of self-critique is NOT to be hard on yourself; it is to discover and correct problems even before anyone else is aware of them. Those who are good at self-critique therefore tend to advance and become competent more quickly than those who are not.

It is possible to become so good at self-critique that you can play something and critique your performance accurately at the same time, but like all other skills, this requires practice. It is best to start by recording yourself, then critiquing the recording. That way, you can concentrate on giving your best performance, and then concentrate on creating a useful critique.

Inquiry steps

1. **Ask** - Choose a piece that you have been practicing and that you are uncertain how to improve. Your question for this inquiry is "How can I improve the way I play this piece?"
2. **Investigate** - For your investigation, find a way to record yourself playing this piece. Make sure you record a good performance; this may take several tries. If you try too many times and frustration is making you play poorly, try again on another day when you are playing (or singing) unusually well. Then, with the music in front of you, listen very carefully to the recording a number of times, making notes on the music when you hear something that does not sound good or correct to you. If you are not sure what to listen for, look at this checklist for ideas. Choose ONE problem (for example, "the rhythm in measure 3" or "tone quality on low notes") that you think you know how to fix.
3. **Create** - Practice the piece over a period of several days, focusing particularly on the element to be fixed. Try to remember anything you have heard from music teachers or other musicians about fixing that particular kind of problem. If it is possible and useful, tell your music teacher, director, or band mates that you are trying to fix this particular problem, and ask for suggestions. When you feel that progress has been made, make another "good" recording of the piece.
4. **Discuss and Reflect**- Listen to both recordings, one after the other. Are you satisfied with your progress? Are there other steps you might take to improve the problem? Are there other things that you would now like to try to "fix"? Do you notice things when you listen to the recording that you did not notice when you were playing? Are there problems that you do not know how to fix, or things (for example, rhythms) that you are not certain are correct? If possible, share both the "before" and "after" recordings with your music teacher, director, band mates, or a friend or relative who is interested in your musical progress. Do they agree with you? Can they point out things that you have not noticed? Can they make useful suggestions for fixing difficult problems? The answers to these questions will help you decide the next steps to take.

4.2.2 Critique your own composition or arrangement

Again, the main point is NOT to make yourself feel bad, but to find and fix problems before other people notice them, and improve faster as a composer and arranger of music.

Inquiry Steps

1. **Ask** - Choose a piece that you have completed recently that you have recorded, could record, or could create a good sound file (for example using midi). The question for this inquiry is "How can I improve this piece?"
2. **Investigate** - Make a reasonably good recording of the piece. If you need other performers to help make the recording, spend some time rehearsing, but get a "best possible" recording before your performers begin to get tired, bored, or resentful. Listen carefully to the recording several times, with the written music in front of you, noting spots that do not sound as strong as the rest of the piece. Pick ONE spot (or more than one if you think the problem is the same), and analyze the spot carefully, with the goal of making it sound stronger, more convincing, or more in style with the rest of the piece. If you are not certain what to consider, try looking at this checklist (http://cnx.org/contents/c14a0ab9-43ba-4d9b-82c5-75f44acce8b5@2/Providing_Constructive_Critici) for ideas.
3. **Create** - When you think you understand why the spot does not sound as good as the rest of the piece, make changes that you believe might improve it. If necessary, rewrite nearby sections, too, so that the changes work smoothly with the rest of the piece. Record the result, again making a reasonable "best possible" recording.
4. **Discuss and Reflect** - Listen carefully to the two recordings, one after the other. Do you like the changed version better? If so, did you learn something that can be applied to other compositions and arrangements? If not, what do you think might be the problem? Are there other spots in the piece that you would now like to work on? Can you share both recordings with a music teacher, director, friend, or family member, and get useful feedback?

4.2.3 Constructive criticism for a friend, classmate, or band mate

There are two ways to do this activity. If one person is a much more experienced musician than the other, but has no experience teaching, then the less experienced musician performs and the more experienced musician offers the critique. The goal for the less-experienced person is to get help; the goal of the more-experienced is to practice helping other musicians. The more-experienced musician must be mature enough to take seriously the need to encourage and help the other.

If the two participants are at a similar level of musicianship, then the activity should be mutual. They should take turns performing and offering critique and help. Again, this activity should only be done if the musicians are mature enough to approach the activity with the goal of being helpful rather than competitive. If done in the right spirit, this exercise can help inexperienced musicians learn to listen to their own playing more carefully.

Inquiry Steps

1. **Ask** - The person doing the critique will ask "What do I hear in the other person's offering that I can help to fix?"
2. **Investigate** - The "performer" will choose a piece to offer to the "critic." (You can call this person a "tutor" if "critic" sounds too harsh.) The performance may involve playing or singing a piece in person, a recording of a performance, or a composition, arrangement, or improvisation that the performer has created. If the critic is not certain what to listen for, try using the checklists in the constructive criticism (http://cnx.org/contents/c14a0ab9-43ba-4d9b-82c5-75f44acce8b5@2/Providing_Constructive_Critici) discussion. If the offering is a recording, the critic should listen to it at least twice. If the performance is live, the critic can ask to hear it twice, in order to verify that there is a consistent problem.
3. **Create** - The critic should take notes on problems noticed and choose ONE to work on. The choice should be something that the critic is able to help with. Useful help may include: pointing out errors, suggesting possible causes of the problem; demonstrating the correct way to do it; and offering solutions, ideas, and techniques that have worked for the critic in similar situations. Criticism is not useful if it is beyond the current understanding or capability of the performer, is not explained clearly, or makes the performer nervous or defensive. The performer should respond by making a sincere effort to make the suggested changes, even if there is disagreement. This may include practicing the new idea immediately, with the critic's help, or making changes alone before meeting again with the critic.
4. **Discuss** - Critic and performer should discuss whether they agree that the performance has been improved. At this stage, the performer can offer a "counter-critique" if necessary, disagreeing with the critic's assessment, solution, or preferences, or pointing out elements of the critique that were hurtful rather than helpful. They may choose to brainstorm together to try to come up with more ideas for "fixing" the problem, or try to come up with a solution that satisfies both, or agree to disagree. Arguments by either party based on professional recordings, or on well-known standards and techniques, should be taken seriously. When practical, appeals can be made for arbitration by a more experienced musician, music teacher or director.
5. **Reflect** - What did the performer learn that can be applied to other pieces? What did the critic learn about taking the role of music tutor?

4.2.4 Critique of a professional performance

Even in this exercise, the goal is not to provide criticism so much as create improvement, so the purpose in listening to the "good" performance will be to find a lesson that can be applied to improve the critic's musicianship.

Inquiry Steps

1. **Ask** - Identify a musical activity (such as playing an instrument, singing, improvising, composing, or arranging) that you would like to be able to do better. The question for this inquiry is "What specifically do "good" musicians do that I am not yet doing?
2. **Investigate** - Choose a specific example of what you want to improve, such as a piece that you are learning to play, or a song you have written. Then choose a recording or live performance of a piece in the same genre or style (it can be the same piece) by a professional, or very competent amateur, musician. Listen very carefully, taking notes on the things that that musician does that you do not do. If you are not sure, make a recording of your work and listen to both, one immediately after the other, listening as carefully as possible. You do not have to make a long or complete list of the differences. You should choose only ONE specific thing that you do not do now that you believe you are capable of doing. (For example, "His dynamic changes are much bigger than mine" or "Her lyrics are not as wordy as mine.") DO NOT choose something that may be beyond your current capability, such as playing extremely high notes. Be realistic; the point of this exercise is to use your critique to find things that you CAN improve right now.
3. **Create** - Go back to your own instrument or composition and do the work necessary to make the specific changes that you heard. If possible, make before-and-after recordings so that you can know for certain whether you have made the change you wanted.
4. **Discuss and Reflect** - Can you apply what you have learned to other pieces? Were there other aspects of the professional performance that you can emulate right now? You may want to work on those (one at a time). Would listening to a different performer give you even more ideas? If possible, demonstrate your new skill to your music teacher, director, band mates, or an interested friend or family member. If you feel comfortable taking critique, you may also ask others what specifically they hear in the professional's work that they do not hear in yours.

Chapter 5 Music Theory

5.1 What do You Need to Know about Music Theory?

Summary

Music theory is a large and varied subject. Beginning your study with the aspects of it that are most useful to you right now is not only the most practical approach, but also will give you the opportunity to practice, explore, and build on what you learn.

Music theory is the study of how sounds are organized so that people recognize them as music. It includes knowledge that is very useful if you want to compose, arrange, or improvise music; or improve your skills as a conductor, singer, or instrumentalist; or be a knowledgeable music historian, musicologist, or music critic.

However, when people organize sounds into music, there are many, many choices to make, at every level from the most basic to the most complex. What timbres (http://cnx.org/contents/f306fb29-f034-4a34-99d5-a44adf8ae813@15/Timbre:_The_Color_of_Music) count as "musical" sounds? What pitches (http://cnx.org/contents/6d74c148-7090-4235-91a5-0d9dc016e4e5@15/Pitch:_Sharp,_Flat,_and_Natura) are they allowed to have? Once a sound is made, what might the next sound be, and when should it be made? When and how can sounds be played at the same time? What makes a group of sounds belong together as a musical idea, and how should musical ideas be organized into longer, more complex pieces?

In addition, there are many, many different styles, genres, and traditions of music in the world, and the things that makes them recognizably different is that they have different rules for how to organize sounds into music, so the theory that explains how to do it is also different. If two types of music are similar, then the same music theory can be used to discuss both, but if they are very different, then it is easier simply to use very different music theories to discuss them.

So, music theory ends up being a large and complex area of study, more a group of subjects than a single subject. Whatever your goals as a musician, music student, or knowledgeable listener, you certainly do not have to understand all of every music theory - nobody ever has! - but there are probably certain parts of music theory that would be of great practical use to you. For example, if you want to be able to improvise jazz solos, then understanding jazz scales, modes and harmonies would be very useful. If you enjoy the Latin styles of ballroom dancing, then learning about the rhythms and meters used in those genres would be useful.

The purpose of this Inquiry into Music: Course Home (Page 3)**-style module is to help you:**

1. Identify the specific music-theory knowledge that would be most helpful to your musical development right now; and
2. Create a plan for gaining that knowledge.

Note: You may want to learn some music theory even though you are not active as a musician yourself. While this is a commendable goal, you should be aware that many of the basic concepts will be difficult to grasp unless you can "play" them and "play around" with them, yourself, because that is what helps you make the mental connection between what musicians do and the sounds that they create. However, you don't necessarily have to learn to play an instrument to do this. See the ***Practical Suggestions*** below for ideas.

5.1.1 The Inquiry

5.1.1.1 Ask

To begin with, you should have a clear idea of what you want to be able to do as a musician. Do you want to be able to play an instrument, talk intelligently about music, sing, dance, compose? Be as specific as you can: As an instrumentalist, do you want to be able to improvise or read music? As a knowledgeable listener, do you want to be able to discuss Baroque or indie rock? If you don't have a music-learning goal right now, it is fine to simply choose something that you believe you could do and would enjoy being able to do. Your question for this inquiry is **What kinds of theoretical understanding help people do this musical activity, and how do they gain this understanding?**

5.1.1.2 Investigate

Anything you do (or want to do) as a musician or listener can be connected to music theory, because music theory is the practice of talking about musical sounds, including the terms used to discuss them and the concepts used to classify, analyze, or explain the music.

What counts as "music theory" understanding?

- **Understanding the meanings of musical terms** - This includes basic terms that you may already be using. For example, even if you can already play major scales, the question "what exactly is a major scale, anyway?" is a good theory question.
- **Connecting a term to the musical sound(s) that it refers to** - For example, learning to recognize a series of sounds as a major scale is an exercise both in ear-training and in music theory.
- **Understanding the rules for notating the music** - For example, major scales can be notated using either a key signature or sharp or flat signs in front of

individual notes. Some scales may even feature double-sharps or double-flats, and it is the rules of music theory that call for and explain this unusual notation.
- **Analyzing notated or heard music** - For example, if you can see (or hear) that a piece in a minor key is suddenly using the notes of a major scale, you have gained a music-theory-based insight into how the composer created the sound of that piece.
- **Recognizing patterns and understanding why rules-of-thumb work** - For example, when you practice scales, you can memorize "rules of thumb" such as the order that flats are "added" in key signatures, but recognizing the pattern and understanding the reason why they are added in that order is even more useful.

You may not be able to find sources that simply tell you what music theory you will need to know and how to learn it, but there should be clues in many places that strongly suggest useful answers. For example, if as a beginning clarinet student, you are given a list of major scales to practice, then you can assume that understanding major scales would be useful. If you like to listen to gamelan (http://cnx.org/contents/c53717a1-4416-471e-a7f8-acd0d7ce5d28@8/Balinese_Gamelan) music but whenever you try to read about it, you run across certain words that you do not understand, then it is reasonable to suspect that understanding those words might be very useful to you.

Remember, your goal for this inquiry is not to actually learn the theory (yet), it is simply to figure out what would be useful to learn and how you might learn it. In your investigation, try to find answers, or clues about answers, from at least 5 different sources. You can check different sources that are of the same type (for example, talk to two different musicians, look at two method books, and read one informational publication); but I recommend that you try to find different types of sources. (For example, do not simply look at five different method books.)

Types of Sources of Information:

- **Talk to a musician** - Do you know someone who can do what you would like to be able to do and would not mind discussing it with you? Musicians may be able to give you a direct answer to your inquiry question; or you may get many clues and ideas from the way they talk about what they do.
- **Talk to a music teacher** - One of the main things that distinguishes a professional music teacher from a good musician is that the music teacher makes a living explaining how to make music, using the terms, concepts, and notations that are correct for that music tradition. If you work with or know a music teacher, this may be your best source for a direct answer to your inquiry question. A music teacher who is unfamiliar with the musical practice or tradition that interests you may still be able to suggest useful resources or ways to approach the problem.
- Informational publications - For example, books and online articles that describe an instrument or a music tradition may use terms and concepts that are unfamiliar to you.
- **Written music** - For example, simply looking, carefully and thoughtfully, at notated music that you are expected to perform (or that does what you would like your compositions to do) may inspire music-theory questions that are very relevant to your goals.

- **Method books** - Books that are designed to help you learn and practice a particular musical activity (such as playing an instrument, singing, or improvising) may feature explanations of useful terms and concepts. Even if they focus entirely on the activity, the types of activities introduced (such as learning to read a notation or practicing scales) give you clues as to what music-theory concepts would be useful. Because musical understanding is so closely connected to musical activity, such books will also be a particularly good source for practical activities that will help you learn and understand the theory.
- **Biographies, interviews, and reviews** of musicians who can do what you would like to do may include unfamiliar terms and concepts. They also may include clues as to how the musician learned to understand and use the theory.

5.1.1.3 Create

Towards the end of your investigation, start creating a plan to reach your music-understanding goals. You can create this in any form you like, for example, as an outline, a short essay, a diagram or flow chart. The plan should include:

1. A description of the music theory that would help you to better understand and do your chosen music activity. This might include, for example, a list of terms that you would like to understand, or a capability that you would like to develop, for example being able to recognize major and minor chords by ear or in notated music.
2. A set of resources (such as method books or informational articles) that you can consult as needed, that are written in a way that you can understand.
3. A realistic plan for musical activities that you can do to develop and practice the understanding or capability. These must be activities you are capable of doing that would be very likely to develop the understanding that you want or need. A few examples: If you play a transposing instrument and want to understand what "transposing" means, plan to learn and practice transposing on your instrument. If you want to understand the tuning system of a foreign music tradition, plan to listen regularly both to music in that tradition and to audio examples that demonstrate the tuning; if possible, plan to practice singing or playing along with music that uses that tuning. (**A tip**: "Disciplined" practice can be very useful, but simply "playing around" with an idea is often a very good way to explore it and strengthen your understanding of it.)
4. If at all possible, locate people with whom it would be useful to discuss your understanding and demonstrate your practice. For example, would your teacher or band director be willing to listen to you transposing and tell you whether you are doing it correctly? Do you have a friend who knows more about that foreign music tradition than you do?

Practical Suggestions for Theory-Exploration Activity

- If your theory questions are related to a musical activity that you already do, such as playing an instrument, dancing, singing, or composing, then your plan should focus on how to explore and practice the concept using that activity.

- If your questions are related to a musical activity that you plan on taking up or that you wouldn't mind doing for a while (for example, taking a 6-week ballroom dance course) your theory-learning plan should be tied to your plans to learn that activity.
- If you don't want to take up a musical activity, but only wish to explore the theory so that you can listen more knowledgeably, one possibility is using an inexpensive instrument such as the "virtual keyboards" that are available on the Internet (some for free) or simple rhythm instruments (http://cnx.org/contents/ab334388-0cfb-403d-aa46-931e8d8d6076@11/Percussion_Fast_and_Cheap) that you can make yourself.
- Programs, apps, and websites that allow you to make music or alter some aspect of a musical sound can also be used to explore notation and music theory. Look for programs that make it easy to "play around with" the aspect of music (such as notation, tuning, rhythm tracks, or instrument sounds) that you want to explore.
- You may be able to collect a personal "listening library" of audio tracks or links to Internet-based audio files that you can play to hear examples of the concept that you want to understand (for example, files and tracks with labels that say things like "F major scale" or "an example of a plagal cadence" or "12-bar blues in B flat").

If, while trying to create your plans, you find there are gaps, do a little more investigation to fill them in. For example, if you feel you need to play an instrument to understand a concept but you do not play one, see if you can find a solution that would work for you, such as using a "virtual keyboard."

5.1.1.4 Discuss

If you are doing this project as part of a class or group inquiry, share your plan with the group. Group members should take time to discuss each plan, asking questions and making helpful suggestions.

If you have a private music teacher or are in a musical group with a director, discuss your plan with your teacher or director if possible. If you are in a music class or in a music group that does not have a director, discuss it with your peers and band mates. You may receive useful suggestions, enthusiastic support, and even offers of practical help, particularly if your theory-learning goal would help you become a better music student or band mate.

If none of these options is available, find friends or family members who might be interested in your progress as a musician and discuss it informally with them.

5.1.1.5 Reflect

As you reflect on what to do next to pursue your music-learning goals, the following questions may be helpful:

- How practical would it be for you to pursue your music-theory-learning plan? Is there anything you can do that might make it more practical? Is there anything happening that makes it more practical to do now than it will be later (for example, do you plan to discontinue music lessons soon)?
- Did your investigation raise new interest in pursuing a certain music activity?
- Did the results of your investigation suggest that there is another area of music theory that interests you more, that would be even more useful or practical, or that you need to explore before exploring this one?
- Did it suggest a long-term music-theory goal that interests you? Is the plan that you created a good first step towards that goal? If not, what might be a good first step?

5.2 Harmonic Analysis as Inquiry

Summary

Using an inquiry-based approach to harmonic analysis makes the exercise more meaningful for the learner, as it focuses on answering a specific question about how the composer used harmony to accomplish a particular task (such as modulating to a new key), evoke a particular genre or style (such as jazz), or create a particular mood or effect (such as an "eerie" atmosphere).

The purpose of this Inquiry into Music: Course Home (Page 3) is to help you better understand music by studying the way chords are used to organize the music, create moods and effects, and evoke genres and styles. You do not have to be able to read music in order to pursue this inquiry, but you must have some way (for example, using chord symbols (http://cnx.org/contents/2ba05db6-4d24-4ece-9084-2c95a136e9a4@1/How_to_Read_Music)) of identifying, understanding, and keeping track of the chords that are being used.

In this inquiry, you will choose a piece or pieces to study, and will study the harmony of those pieces with the goal of answering a particular question about the harmony. You will then demonstrate in a creation of your own what you discovered in your studies.

5.2.1 Ask

The questions that can be answered by analyzing the harmony of a piece of music are typically questions about what is happening in the harmony and how it affects the form, style, mood, and other aspects of the piece.

Designing Inquiry Questions (Page 23) are those that are interesting to you and will require some effort to discover and understand the answer. They should be specific. For example, "What is jazz harmony like?" is too general, but "What is it about the harmony of this piece that makes it sound jazzy?" is specific enough.

Even though you have a specific question in mind, you may have trouble stating it at first, because you don't have the vocabulary to talk about it yet. For example, you may begin with the question "What is going on in the harmony" at a particular point in the music that sounds interesting to you.

Examples of the types of questions that can be answered by analyzing harmony

- How does the harmony help create the mood of this piece?
- What is it about the harmony that makes it sound like it belongs to a particular genre or style?
- What is it about the harmony that makes this piece sound different from other pieces in this genre or style?
- How are persuasive cadences (endings) created?
- How does the harmony create interest and variety? How does it create a sense of pleasant familiarity and predictability?
- How does the harmony support and interact with the melody, rhythm, form, or other aspects of the music?
- How are smooth modulations (changes to a new key) created?
- Is this music tonal, modal, diatonic, chromatic, atonal?

5.2.2 Investigate

5.2.2.1 Choosing the Music to Analyze

Once the inquiry question has been identified, some careful thought should go into choosing music that is likely to help answer the question.

Note: Don't choose a project that is unnecessarily big! In order to answer your question, you may decide that you need to analyze an entire piece of music, but you may just need to study one or a few sections of a piece, or short sections of two or three pieces.

For example:

- If you want to understand how the harmony makes a piece sound "sad," choose particularly sad-sounding pieces, or sections of a piece of music, and compare the harmony in these pieces or sections to other pieces or sections that do not sound sad.
- If you want to understand how to write a classical-sounding modulation, choose one or two classical pieces, locate the sections that lead up to a change in key, and analyze those sections.

You may also want to choose at least one musical "counterexample" that you can compare with your chosen music. For example, if you want to know what it is that makes harmony sound "jazzy," you might want to compare sections from two jazzy pieces with one piece that does not sound jazzy to you, and look for the differences.

5.2.2.2 Analyzing the Music

Bring to bear all the resources that are available to you as you try to analyze the harmony and try to understand how it affects the music.

Useful Resources

- Find recordings of the music and listen to them.
- Find written versions of the music that you can read, for example full scores, piano or guitar lead sheets, or song sheets with chord symbols.
- Get out any instruments that you play and read through the music, play along with the recording, and/or try to play the music by ear, to get a feel for the melody, chords, and voicings.
- Look for analyses of or essays about the piece by other musicians or critics. What do they say about the harmony? Is it relevant to your question?
- Look for useful general discussions of the subject. Can you find a good text about jazz harmony or about modulation or cadences that would shed light on the music and the question you are trying to understand?
- Is there a teacher or musician available whom you could ask specific questions when you get stuck? If there is an instructor available to help you with this inquiry, you may also want to ask for suggestions as to what specific pieces to choose, what sections of the pieces to analyze, or what aspects of the harmony you should study most closely.

You may already know what aspect of the harmony interests you. If you are not certain what it is about the harmony that is creating the effect that interests you, here are some useful things to ask as you analyze the music:

- What chords are being used? What is their function in the key (http://cnx.org/contents/562750a3-3578-4e83-a29d-5eba9e163fc2@23/Beginning_Harmonic_Analysis)?
- What type of chords (major, minor, seventh, suspensions, etc.) are being used?
- What chord progressions are used; in other words, which chords tend to follow which other chords?

- How often do chords change? Every beat, every measure, every few measures?
- What chord voicings are being used: Which notes are on the top and bottom of the chord? Are all the notes of the chord being used? Are they clustered close together or spread out over multiple octaves?
- What instruments are used to play the harmony parts? Is the harmony played in a high, low, or medium range? How would you describe the timbre (http://cnx.org/contents/f306fb29-f034-4a34-99d5-a44adf8ae813@15/Timbre:_The_Color_of_Music) of the harmony?
- What kind of texture (http://cnx.org/contents/04ac529b-2695-4994-b5a6-22a3776d69e3@14/The_Textures_of_Music) is used to create the harmony: block chords, arpeggios, counterpoint, a bass line that simply implies the harmony?
- Are the answers to any of these questions different for different parts of the music? (For example, do chords change more often in the refrain than in the verse?)

As you listen to, look at, read about, and otherwise study the music, you may find yourself struggling to answer some of these questions. If a question does not seem relevant to your investigation, you can ignore it. If you feel that understanding it may be the key to your inquiry, however, you may end up focusing your investigation, for example, on understanding counterpoint, chord voicings, or how a bass line can imply an entire harmony.

5.2.3 Create

In order to test the understandings gained in your investigation, you should compose a creation of your own that demonstrates the insights that you have discovered. Because music is in the end "understood" aurally, your creation should involve sound, not simply a text-based report or critique. Your creation can be large or small, and it may be completely original or include borrowed musical ideas. For example, it might be composing the harmony for a song that you are writing, an arrangement of a favorite tune, or a short etude that would help you practice performing a certain type of harmony.

For example

- If you discovered that certain types of chords are used in your favorite jazz piece, jazz up a favorite non-jazz piece by re-writing it using those types of chords.
- If you discovered that your favorite composer uses a particular progression in modulations, compose a piece that uses that progression to modulate to a new key.
- If you discovered that an "eerie" atmosphere was created by using certain chord voicings in a piece, write a short "eerie" piece of your own using similar voicings.

5.2.4 Share

If you are doing this inquiry as part of a class or group, share your creations with each other. As each creation is presented, everyone else in the group should take a turn providing constructive criticism (http://cnx.org/contents/c14a0ab9-43ba-4d9b-82c5-75f44acce8b5@2/Providing_Constructive_Critici) that focuses on the harmony of the piece. If you encountered a specific problem in creating the piece, or if you are unsure what you might do to make it better following the constructive criticism, this is also a good time to discuss the problem and collect suggestions and possible solutions from the group.

If you are not part of an inquiry group, share your creation with someone: music teachers, classmates, band mates, friends, relatives, or fans. Request the feedback that is feasible from your audience. For example, a relative with no formal music training may be able to tell you which parts of a piece achieve a particular style of effect, while a music teacher may be able to help you identify why a particular chord progression feels awkward.

5.2.5 Reflect

Final reflections on this inquiry should include considering any feedback from people who heard the creation, as well as your own critique of the success of the creation. It may also be useful to ask:

- What other questions arose during your investigation? Are any of them a good focus for your next inquiry?
- Do you feel your investigation answered the original question to your satisfaction, or would it be useful to study other pieces using similar questions?

5.3 Exploratory Analysis of a Piece of Music

Summary

It is useful to begin analyzing a piece of music by creating an overview of what you know and understand about how the piece is organized. The overview will help you to focus on the aspects of the piece that are most interesting and instructive, as well as creating a list of the things that you do not yet know or understand about the piece.

Music is sound whose timing, pitch, and timbre have been organized by people for social purposes other than simple communication. Understanding a piece of music, then, focuses on understanding how and why the sounds have been organized. The analysis suggested below focuses on "how" the music is organized - the **music theory** question. (The "why" is normally the province of **musicology**.)

The purpose of an exploratory analysis of a piece of music is to create a quick overview of what you know and understand when you listen to the piece or look at a notated version of it. The analysis outlined below assumes that you have chosen a piece of music that you consider "good" and are mainly trying to understand how it is put together. This type of analysis is particularly useful for anyone who would like to compose, arrange, or improvise pieces in the same genre and style. If you understand how good composers, song-writers, improvisers, and arrangers have organized their music, it becomes much easier for you to put together good music of your own. Music-theory analysis is also useful for musicians who are preparing to perform a piece, write a critique of it, studying music theory or researching the history or sociology of music.

A "complete" analysis, explaining every aspect of every sound in a piece, would probably be impossible. A very thorough analysis of even a short piece of music would require much effort and is likely to produce much that is obvious, irrelevant, or uninteresting. Most thoughtful and useful analyses focus on the most interesting and instructive aspects of the piece. A musician who is experienced at analysis can quickly and easily identify the most important aspects of the piece. Musicians who are less experienced may want to do a formal preliminary analysis, such as the one outlined below. The point of creating this overview analysis is to identify the aspects of the piece that you do not yet understand and believe to be instructive and interesting. The rest of your analysis can then focus on understanding those aspects of the piece.

5.3.1 Quick Analysis of Timbre, Pitch, and Timing

You will create your exploratory analysis by answering each of the questions in this outline as best you can. Remember that this is supposed to be a quick-rough-and-ready analysis. Your written answer should be a short, clear representation of what you are sure you know about the answer. For example, it's fine to simply write "major key" if you are sure it's in a major key, but not sure which major key. It's fine to write "typical rock band" as the answer to "what instruments are used," as long as you know what the instruments in a typical rock band are. If you know some of them, but are not sure of others, list the ones you do know, then write "I don't know the rest."

It is fine if the answer to any question is "I don't know." Do not guess at answers. Do not start looking up things that you don't know (yet). Do not spend a lot of time analyzing an aspect of the music that is difficult for you (yet). Those steps will happen after you have decided which aspects of the piece are most useful for you to understand. You can use any of the following resources to help you answer the questions, as long as it is quick and easy for you to use them:

- **Recordings of the piece**: Listen to recordings of the piece as often and as carefully as you like.

- **Written versions of the piece**, if they are available, and you can read the notation, and you do not want to focus on training yourself to analyze music by ear.
- **Your own instrument**, if you can play through or figure out parts of the piece, and if that will help you understand it better.
- **Your own written or notated jottings**, if you can create useful explanations and reminders about the elements of the piece, in words, formal notation, or your own made-up notation, while you listen to or play through the piece.

5.3.1.1 Overview of Timbres Used

Questions about timbre (http://cnx.org/contents/f306fb29-f034-4a34-99d5-a44adf8ae813@15/Timbre:_The_Color_of_Music) are questions about what types of sounds are used in the music.

5.3.1.1.1 Voices

If voices are used in the piece:

- What kinds of voices are they? (Men, women, children? Tenors or basses? Professional singers, music students, amateurs?
- What do the voices do? Do they sing, chant, recite, yell, hum?
- How would you describe the tone quality of the voices? Operatic, growly, nasal?
- To what extent are these answers typical of this type of piece? (For example, could a female voice be used instead of a male? Is yelling expected or unusual in this music style?)
- What are the constraints of using a voice in this way? (For example, what is the range of a professional tenor voice, or the capabilities of young student singers?)

5.3.1.1.2 Instruments

If musical instruments are used in the piece:

- What are the instruments used?
- What is each instrument's function? Does it, for example, play solo melodies, create a rhythmic pattern, play chords, or a drone, or a harmony or bass line?
- How would you describe the types of sounds available to each of these instruments in this type of piece? (For example, does the instrument sound strident at the top of its range (http://cnx.org/contents/c4153071-1ec2-43eb-86b5-5b44ab61fc29@11/Range) but quiet and breathy in a lower range. Is it an electronic instrument that has multiple timbres available at the touch of a button?)

- Do the instruments, and the way they are used, strongly suggest a particular musical style or tradition?
- In what ways are the instruments, and the way they are used, typical or unusual for this type of piece?

5.3.1.1.3 Other Sounds

If there are sounds in the piece that are not created using voices or musical instruments:

- How would you describe the sounds? (Are they samples from other music? Are they crashes, clicks, tones, animal sounds?)
- What was used to create the sounds?
- In what ways are these sounds typical or unusual for this type of piece?

5.3.1.2 Overview of How Pitches are Used

The pitch (http://cnx.org/contents/6d74c148-7090-4235-91a5-0d9dc016e4e5@15/Pitch:_Sharp,_Flat,_and_Natura) of a sound is a quality related to its frequency and wavelength. In English we describe sounds with higher frequency (and shorter wavelength) as "sounding higher" or having a "higher pitch." Sounds that do not have a specific frequency (such as a cymbal crash or a drum hit) are **unpitched**. Sounds that slide quickly from one pitch to another (such as a siren or the chirping sound made by some birds) have **variable pitch**. Sounds that stay on a particular pitch long enough to be considered a sound with that pitch are called **tones**.

- How is the use of unpitched and/or variable-pitch sounds typical or unusual for this type of piece? (For example, if the piece includes bird calls but no unpitched drums, is that typical of this type of piece?)
- Are there any tones in the piece? (If the answer is no, skip the rest of the questions in the Pitch section.)

5.3.1.2.1 Which pitches are used as tones?

What is the tuning system (http://cnx.org/contents/37a22b6b-d06d-480a-9c69-eb9daf025e38@27/Tuning_Systems) that dictates which specific pitches are allowed to be used as tones in this piece.

What is the key (http://cnx.org/contents/86cbf322-1fc8-4c9d-aa3d-7b732e2019af@28/Major_Keys_and_Scales), mode (http://cnx.org/contents/1719a1ef-029e-417b-bc0a-00d18226348d@16), raga (http://cnx.org/contents/1719a1ef-029e-417b-bc0a-00d18226348d@16/Modes_and_Ragas:_More_Than_jus), tone row, or other music-theory construct that creates preferences for certain tones, defines their relationship to each other, and dictates how they should be used within the piece?

5.3.1.2.2 How are the tones used?

- Is each tone held steadily from beginning to end? If not, what types of ornaments and pitch variations are used?
- Do some tones occur one after the other quickly enough that they are heard as a distinct line in the music (for example, a melody line, harmony line, or bass line)?
- If you can hear a distinct **line** in the music, how would you describe its pitch motion? (For example, does it move from one pitch to another quickly or slowly? Does it leap between distant pitches, move by steps up and down the scale, or stay within a small range?)
- If more than one tone sounds at a time, does the result tend to be triadic or quartal chords? Dissonances? "Open" intervals (such as octaves or fifths)?
- Are some of the tones held for long periods of time, functioning as drone notes?
- Regardless of whether you hear multiple tones at a time, are some of the tones used to create or imply functional harmony? If there is functional harmony, choose a short, interesting section of the piece: What are the chords used in that section, and how do they function in the harmony?
- Are the answers to any of these questions different for different sections of the piece, or for different instruments? Do any of them indicate an unusual use of pitch for this kind of piece?

5.3.1.3 Overview of How the Sounds are Organized in Time

5.3.1.3.1 Overall form

The form of the music is its overall organization from beginning to end.

- Name the major sections of the piece, in the order that they occur (for example: intro, first verse, refrain, second verse, bridge, refrain).
- What is a piece with these sections typically called? If you know the style of the piece, your answer may include style words, such as "Baroque" or "samba" or "jazz." This is useful, because, for example, a "samba song" may typically have different sections than a "jazz song." So naming the style can help name the form of the piece. However, simply naming the style is not enough. Is it a samba song or a dance? Is it a Baroque fugue or a toccata?
- What elements play an important part in dictating or creating the overall form of the music? The sung words? The rules for sonata development? The number of beats required for the dance steps? The raga and tala? The need to make each part of a round fit with the other parts?

- What elements make the form most audible? The entrances of the fugue subject? The cadences in the functional harmony? The difference in texture between the verses and the refrain? Sudden changes in tempo or meter?
- What is the audience expected to do with this music (dance, march, sing along, listen passively)? How, where, and why is it typically heard? Do these expectations affect the form of the piece?

5.3.1.3.2 The pieces of the piece

The overall form of a piece can be broken down into sections. Even a very short piece of music can usually be described as sections (for example, three phrases: a call and a repeated answer). For a very long piece, it can be useful to divide and subdivide multiple times, to see how the composer spins out a long piece by connecting and developing smaller ideas. For example, a symphony is divided into four movements. One of those movements might be a dance consisting of four repeated sections. The first of those sections might consist of 2 eight-measure phrases, and the first of those phrases might be built from four variations on a short motive (and so on).

- Are the musical ideas that draw the attention best described as motives, distinct phrases, or long lines with no clear division into phrases or motives?
- How are the musical ideas put together? For example, do phrases happen one at a time, or do they overlap? Is an entire section built up from a single motive? Is a phrase-based melody accompanied by a persistent rhythmic motive?
- To what extent is repetition used? At what levels is it used? (For example, repetitive rhythm establishing the beat, short motives reused to create a melody, whole phrases repeated, whole repeated sections)? Are repetitions exact, or slightly different? What is different and why? (For example, does the melody change slightly to fit new words, or is the repetition in a new key because of the expectations of sonata form?)

5.3.1.3.3 Rhythm

The short-term organization of the sound from one moment to the next creates rhythm, audible groupings of the sounds in time.

- Is the music organized into regular pulses? If so, name the meter (http://cnx.org/contents/bf5a39f8-1c52-41f4-910e-b82a8079e5e6@12/Meter_in_Music), time signature, tala, or other organizing principle.
- Are accents (http://cnx.org/contents/b9f0594e-2995-4ce7-970e-7a17ba38905e@13/Dynamics_and_Accents_in_Music), articulation (http://cnx.org/contents/9ddddf32-a9c4-47c9-bc0d-73c1385d8d13@9/Articulation), and/or changes in dynamics (http://cnx.org/contents/b9f0594e-2995-4ce7-970e-7a17ba38905e@13/Dynamics_and_Accents_in_Music) crucial in creating or expressing the rhythm, form, or style of the music?

- Are there any rhythmic devices (such as syncopation (http://cnx.org/contents/cbf8c786-a705-4f77-be8c-095af348046d@10/Syncopation) or borrowed divisions (http://cnx.org/contents/fe1e481a-f2c2-481c-9796-1bae5c426988@10/Dots,_Ties,_and_Borrowed_Divis)) that play an important part in the piece?
- What specific rhythmic motives or ideas make this music distinctive, and how are they used in the development of the piece?
- In what way is the organization of the rhythm typical of a particular style of music (for example, salsa, swing, or hard rock)? Is the rhythm atypical of this style in any way?

5.3.1.4 Summary: Where should you concentrate you analysis?

As you answered the questions above, you may have already discovered the aspect of the piece that is most intriguing, most difficult to understand, or most relevant to the questions you have as a learner and creator of music. If you are still uncertain where to focus the rest of your analysis, look over all of your answers and consider:

- Which aspects of this piece attracted you to it in the first place?
- Which aspects can you definitely dismiss as irrelevant to your current interests?
- Which aspects are the most difficult for you to describe, understand, or analyze?
- Which musical elements are the most complex in the sections of the music that you find most interesting?
- What aspects of this piece would you find most difficult to imitate convincingly in a composition, improvisation, or arrangement of your own? Which aspects are the most unlike your own attempts to create this type of piece? (You may need to do an exploratory analysis of your own composition to discover the answer.)
- Which aspects of this piece do you find the most difficult to perform? Or which are the most unlike other pieces in this genre or tradition that you have already studied?
- Do your interests lie in aspects of the music that you could analyze well on your own given enough time, in aspects that you could analyze sufficiently given some help and music-theory resources, or in aspects that you currently have no idea how to analyze? If you cannot finish an analysis on your own, are the resources and help you need available? Could you learn what you want to know by taking lessons or classes, or by joining a musical group?

Chapter 6 Music Literacy

6.1 Planning for Music Literacy: An Inquiry

Summary

The first step to take in music literacy is to find out which music-reading and music-writing skills are most necessary and useful for the type of musician that you would like to be. The next steps to develop a plan for gaining the necessary skills.

Music literacy includes skills, such as being able to read and write musical notations, that can be crucial to a musician's progress and success. However, different kinds of musicians may need different kinds of music literacy, and some find that they do not need it at all. For example, a classical guitarist needs to learn to read treble clef notation very accurately, while a country-music guitarist may find it more practical to begin with reading chord charts. A drummer may want to be able to read rhythms correctly, while a singer in a choir may simply want to be able to pick out the notes one at a time on a piano. (See How to read music (http://cnx.org/contents/2ba05db6-4d24-4ece-9084-2c95a136e9a4@1/How_to_Read_Music) for a more detailed discussion.)

Learning to read and write music is not an easy task; even music students with good teachers and plenty of opportunity to practice can take years to become very proficient at it. You may not want to spend a lot of time and energy perfecting skills that you do not need. This inquiry is designed to help you determine what kinds of music literacy are most necessary or useful for the kind of musician that you would like to be.

Note: If you are trying to plan a course in which students will gain music literacy skills, you may want to consider both the music curriculum goals and the types of literacy that might allow the students to pursue their own musical interests following the course.

6.1.1 The Inquiry

6.1.1.1 Ask

To begin with, you should have a clear idea of what you want to be able to do as a musician. Do you want to be able to play an instrument, talk intelligently about music, sing, dance, compose? Specifically what type, style, genre, or tradition of music do you want to be capable in (as an instrumentalist, composer, etc.). Do you have a musical role model, someone who has gained the skills that you would like to master? If you have multiple goals, pick the one that interests you most right now. If you do not have any, choose a goal that you think you might enjoy even if you eventually change goals. (Good musicians typically choose new music-learning goals regularly, so do not be concerned that you might not pick the "right" goal.)

You should have in mind a particular kind of musician, for example a "Celtic-harp player" or a "heavy-metal song-writer" or a "choir tenor." Your question for this inquiry is **What kinds of music reading and writing skills do such musicians have, and how might I acquire those skills?**

6.1.1.2 Investigate

Remember to look for information about:

1. Is music literacy necessary in this situation? Are learning by ear, improvising, and/or playing from memory common? Are they considered more valuable skills than reading music?
2. What kinds of notation are used? If a variety of notations can be used, is one easier to learn, more common, more respected? Would you be expected to know all of them?
3. How good would you have to be at reading the notation in order to do what you want to do?
4. Would writing music also be a necessary or useful skill?
5. How have others learned these specific music-reading or writing skills? In lessons, classes, while playing with others, or on their own?

Sometimes there are a range of answers to these questions. For example, some pop singers read music very well, while others do not. Some guitarists take private lessons, while others have learned through playing in bands with friends. Your goal is to get an idea of what the possible answers are to your question, so that you can then decide which version of the answer makes the most sense in your situation. To do this, you should consult a variety of sources before making your plan.

Possible sources of information

- **Talk to a musician** - Is there someone who is the kind of the musician you would like to be and who would not mind talking to you about what they do and how they learned to do it?
- **Talk to a music teacher** - If you have a music teacher or are considering hiring one, ask about the kinds of notation that will be studied and why they should be learned. If the teacher might have different goals than you (for example, if a piano teacher is likely to focus on classical music, while you are interested in jazz), ask whether music-reading in your preferred genre can be included.
- **Informational publications** - For example, books and online articles that describe an instrument or a music tradition may have plenty of clues about how

and when people read and write that kind of music, and what activities are done "by ear" or by memorization.

- **Autobiographies and interviews** - Look for writings in which your musical role models discuss their career, musical activities and challenges.
- Written music - How easy is it for you to find music that is written for that kind of musician? What kinds of notation does it use?
- **Methods** - Look for method books, tapes, CDs, or online methods that teach the particular skill that you want to learn, and the style or genre that interests you. What information do they have about understanding and using the notation? What types of notation do the books use? Are there audio methods that claim to be able to teach you to do it by ear?

6.1.1.3 Create

Towards the end of your investigation, start creating a plan to reach your music-literacy goals. You can create this in any form you like, for example, as an outline, a short essay, a diagram or flow chart. The plan should include:

1. A description or list of the music-literacy skills you need in order to be the kind of musician you want to be.
2. An accurate assessment of where you stand right now with such skills.
3. A plan for getting from one to the other.

If you cannot answer #1 or #3 yet, continue to do some more investigation. For #2, create a record of your present ability. For example, make a recording of yourself trying to read a piece of music, or try to write a melody correctly, or simply look at the notated music and write about (or record yourself talking about) what parts of it you do and do not understand. You may be reluctant to make a record at this point, but later on you will appreciate having it as a point of comparison, to check on your progress.

6.1.1.4 Discuss

If you are doing this project as part of a class or group inquiry, share your plan with the group. If you have a private music teacher or are in a musical group with a director, discuss it with your teacher or director if possible. If you are in a music class or in a music group that does not have a director, discuss it with your peers and band mates. If none of these options is available, find friends or family members who might be interested in your progress as a musician and discuss it with them.

If you are not certain what kinds of improvement your music-reading or music-writing skills need, you should also ask a musician or music teacher to check your creation and make specific recommendations.

Listen for any useful feedback they might have about your goal and how it might be accomplished. Ignore unhelpful criticism, but be willing to do more investigation and/or adjust your plan if you receive good advice.

6.1.1.5 Reflect

As you reflect on what to do next to pursue your music-learning goals, the following questions may be helpful:

- How central is your music-reading plan to your long-term goals as a musician and music-learner? Should you pursue it before, after, or alongside other music-learning projects.
- How feasible is it? What might you do to make it more feasible?
- Has this investigation changed your short-term or long-term music-learning goals? Has it changed your thoughts about what kind of musician you want to be?