TIPS

Thinking Skills in the Music Classroom

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Foreword

MENC: The National Association for Music Education has created the TIPS series to provide music educators with a variety of ideas on a wide range of practical subjects. Each TIPS booklet is a compilation of methods, ideas, and suggestions that have been successful in the music classroom. MENC has designed this quick-reference series to be used as a starting point for creating and adapting projects for your particular situation.

TIPS: Thinking Skills in the Music Classroom is designed for music teachers at all levels who would like new ways to incorporate thinking skills as part of their instruction.

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Introduction

The information explosion, coupled with emerging technology and a global economy, means that citizens of the 21st century must be equipped to solve problems, analyze and synthesize data, and make decisions. Experiences making music provide opportunities for today's students to exercise and refine these thought processes.

This booklet is designed to offer suggestions to music teachers about how to develop stronger and more independent musicians who at the same time will be thinking citizens of the 21st century. Examples are given for K–12 vocal, general, and instrumental instruction. Teachers are offered the opportunity to consider thinking processes as they occur in their own teaching situations and to examine thinking skills in other areas of music teaching as well.

Because there is much debate about the line of demarcation separating "critical thinking" from "creative thinking," the two are treated under one umbrella for the purposes of this booklet. Neither has one taxonomy or framework been selected as a working model for this booklet. Rather, these tips are suggestions to music teachers who want to improve student thinking in their classrooms regardless of what thinking skills model is currently being used in their school district or local building.

There is, indeed, a classroom climate vital to encouraging thinking. There are definable tips for encouraging students to think creatively even as they are developing the knowledge most basic to making music. Teachers can cite examples of learning situations common to music classrooms and describe and label thinking skills involved in discrete music lessons. When students are taught to label the thinking skills involved in creating and recreating music, they are empowered to own these thinking skills and transfer them to future music making as well as to the other problems and processes of learning.

Teaching colleagues in other disciplines are not always aware of the scope of creative and higher level thinking skills that are a natural part of music instruction and learning. By developing and using thinking skills vocabulary, music teachers not only empower their students to become independent musicians but teachers also demonstrate to colleagues the complexity of the thinking process involved in making music.

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Strategies for Establishing a Thinking Classroom: Creating the Climate

Begin by making students feel safe in the music room so that they will risk thoughts beyond typical rote answers. Design your classroom as a place where creative and inquisitive thinking are accepted and encouraged. Demonstrate to students that new and unusual ideas are valued by creating an environment where individual ideas are respected and risk taking is rewarded. This invitational environment involves the physical setting—how the furniture and other concrete physical elements are arranged—and the emotional setting—how the feeling level is prepared.

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The Physical Climate

- Arrange the furniture in flexible patterns so that students do not always sit in the same seat and look at the same view of the room, you, and their classmates.
- When possible, arrange the seating in small groups—a circle or semicircle instead of rows.
- Arrange the room for maximum student interaction.
- Encourage the students to move or rearrange the furniture, equipment, or themselves if it helps with learning.
- Use color effectively to create mood.
- Display examples of thoughtful student work (e.g., compositions, writings, photographs, artwork, and so on).
- Use living plants where possible for warmth of setting and to model organic growth.
- Display magazine or newspaper articles that discuss unusual musical ideas, celebrations, or compositions.
- Hang pictures or posters of a variety of creative, productive musical thinkers (e.g., John Philip Sousa, Wolfgang Mozart, Bobby McFerrin, and Alice Parker).
- Use variations in lighting.
- Consider the acoustics of the setting not only for musical reasons but also for constructive student interaction.

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- Allow "wait time" after questions. (Wait time is defined as more than a three-to-five second interval between the close of the question and the first spoken answer, which allows students time to think before they respond.)
- Foster an understanding of the meaning and value of wait time.
- Make eye contact with each student frequently.
- Rotate the focus of authority. Leave the podium and move among the students occasionally to shift the focus to the student speaker.
- Smile when appropriate.
- Be conscious of your facial expressions.
- Share with students how you selected a specific musical idea. For example, you can discuss the different conducting patterns you tried before you selected the one you think works best for a particular musical phrase.
- Admit your mistakes.
- Talk about the thinking or reasoning process behind "wrong" answers.
- Share your enthusiasm for making music.
- Model an inquisitive, creative disposition.
- Encourage students to identify and label musical problems.
- Ask frequent open-ended questions and encourage varied answers.
- Encourage peer interaction to solve musical problems.
- Be willing to share control of the learning process with students. Be the "guide on the side" rather than the "sage on the stage."
- Encourage diversity.
- Praise and reinforce good thinking.
- Weave into teaching and class discussions models of effective musical thinking (e.g., the creation of jazz or the collaboration between a soloist and an orchestra during the performance of a concerto).
- Ask students how they would solve a particular musical problem that involves the class. Ask, for example, "What will we need to think about in order to perform these eight measures musically?"
- Talk with students about your collaborative thinking with other teachers, administrators, and parents.
- Risk expressing your own thinking, even if it represents an as yet unsolved problem or puzzle.
- Show respect for students' ideas even if they're farfetched.

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Strategies for Developing Basic Knowledge

Developing basic knowledge is not thought of as fertile territory for thinking. It has been said that critical and creative thinking are only useful once students have something to think about; however, even the acquisition of basic knowledge can involve student participation and thinking.

How do your students remember the basic information they need to "do music well"? Memorizing what they read or are told by someone else is not the only path to acquisition of basic content. Following are ideas that involve students' minds as they learn basic information.

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- You are concerned that your trumpet student hold the instrument at the correct rotation. You place the instrument in the desired playing position and ask the student how he or she will remember the rotation angle. A possible answer from the student that demonstrates ownership of the thinking and the solution: "The buttons (valves) are at one o'clock."
- Use board games (such as music bingo) or active games (such as a homemade version of musical Jeopardy) to check basic facts.
- Ask students to create a way to remember how to hold the bongo drums correctly. (The students know that the larger drum plays a lower sound and that the smaller side plays a higher sound.) Possible creative solution: "Remember 'L': Lower to the Left."
- Posture is always important to good choral sound. A student-created idea for obtaining and maintaining good posture would be to imagine "zipping up a jacket" as they prepare the body for singing.
- Beginning recorder students create squeaking sounds. You remind them that one way to prevent this is to check to be sure that their fingers cover the holes tightly. You ask the students to create an independent way to remember this. Noticing the tiny round indentations on their fingers when the holes are covered correctly, they might come up with "Check for Cheerios."
- You are concerned that your choral students maintain a free and open throat. You suggest that they imagine they are "sipping through a straw" to achieve the desired palate and throat position. Ask the students for other images. Two possibilities from

students are: "feel the cold behind the teeth" and "pretend you have a ping-pong ball in your mouth."

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You may or may not suggest the initial idea or image. The important step is asking students to create their own suggestions or tips that help them build and remember the basic knowledge necessary for making music successfully.

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Strategies for Making Music Happen

Once students have acquired basic musical knowledge and skills, how do they move from playing the part to playing in an ensemble? How do they shift from singing or playing notes to being able to perform with musical expressiveness and understanding? How do they develop the skills and confidence necessary to improvise and compose? In-depth musical skills, understandings, and expressiveness come from personal ownership of the tools necessary to think musically. Ownership of these tools comes when students practice and wrestle with musical ideas, concepts, skills, and problems. Saying "because I'm the conductor (teacher) and I said to do it this way" doesn't lead to independent musicians or independent musical thinking.

There are many thinking skills necessary for musical independence. The following represent only a few of the possible categories. *More than one thinking skill may be used in a given illustration.* These examples are meant to prompt you to think of more ways to encourage independent thinking during music instruction.

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Compare and Contrast

- Play two recordings of the same selection. (One recording may be of a performance by your own students.) Ask the students to find similarities and differences in style, rhythms, expressive interpretation, and so on.
- Watch short selections of videos of two bands, orchestras, or choruses. Invite the class to list ways the groups were alike and ways they were different.
- Listen to recordings of Pavarotti and Domingo singing the same aria. How are they alike and how are they different?
- Ask two groups of primary students to create pentatonic accompaniments for a song the class knows. Ask the entire class to discuss how the two accompaniments were alike and how they were different.
- Ask students to describe how the chromatic scale is different from the diatonic scale.
- Ask the inside-stand players of the orchestra to perform a section of the music being rehearsed. Ask the outside-stand students to play the same section. Ask the remainder of the orchestra to describe how they were alike and how they were different.

- Have the students listen to Whitney Houston and Robert Merrill sing "The Star-Spangled Banner." Discuss the similarities and differences.
- Ask students, "How is a trumpet like a cornet? How is it different?"

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How to Approach a Task

- When learning selections for solo and ensemble festival or learning parts for a musical show, ask the students to create individual time lines for their work. Each student will divide the music he or she must learn into sections to be memorized by self-determined dates.
- When students are preparing to perform away from the school, ask them (not the teacher) to decide what tasks must be completed in order for the program to be successful. Encourage students to list the tasks, find student or parent volunteers to complete appropriate jobs, and generate a time line for completion. This not only teaches students how to approach a task, but builds responsibility, independence, and appreciation for the work it takes to present a concert.
- When preparing to sight-read a new selection, ask the students what the group might talk about beforehand that will lead to a more successful reading of the piece. Students might suggest rhythmic and melodic patterns, notational concerns, and vertical or horizontal comparison of parts. Students who participate in this thinking activity as part of their ensemble should be encouraged to practice this same behavior when sight-reading a new selection alone.
- Primary music students ask to create an instrumental accompaniment for several poems they have studied. As they begin, discuss with the students their choices: sound effects or melodies? Having the entire class accompany each poem or dividing the class into groups and having each group accompany one poem? Using classroom instruments or found sounds?

* * *

Creating a Product

- Divide your choir into small ensembles. Ask each group to rehearse and perform a section of a larger piece for the entire group. Ask the small ensembles to describe the interaction and musical decisions they made in order to create their presentation. Ask the full choir to decide which ideas generated by the smaller ensembles would lead to a better choral performance. Incorporate these ideas.
- Ask one student to create a drum part to accompany a group performance. Invite the student to share with the class the choices and decisions involved in creating the accompaniment.
- Invite the students to create words for a new school song, a song to honor someone at a special occasion, or to enter a musical competition.
- Ask students in a middle-school class to create a rhythmic accompaniment for an African game song they know well. Have the students select tone colors, rhythm patterns, and who will play the instruments. After practicing the song and the accompaniment several times, divide the full class into small groups. Have each group decide on one musical thing they especially like about the performance. Share ideas among the entire class. Next have each small group suggest one idea that might improve the class performance. Share these ideas with the entire class. Talk about which ideas to incorporate into the class performance. Play and sing the song again with the ideas for improvement generated by the students.

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Decision Making

- Your group has just performed a selection in a large hall for an audience of five hundred people. The following day the group will perform the same selection for the principal and the chairperson of your school board in your regular rehearsal site. Ask the class to discuss what changes you will need to make in order to make the second performance aesthetically enjoyable and meaningful to the two persons who have come to hear your group in the more intimate setting.
- Your large ensemble has been invited to present a ten-minute program at a school board meeting in six weeks. The meeting room is large enough to accommodate whatever you would like to perform. Invite interested students to meet with you at lunch or after school to discuss what you will perform, how it will be presented, and most important, a plan for explaining to the ensemble why these pieces were selected.

student has had time to write, share the contents of their writings. List what the students already know about mariachi bands. List any topics the students would like to know more about. Decide as a group how to find these answers. At the next class meeting share the new information. Have the students look for photos and magazine or newspaper articles about mariachi bands. After the performance have the students write about what they learned from the performance and how they felt about it, what they found interesting, and whether the performance was what they expected after their research and discussion.

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Brainstorming

- Have a group of primary children demonstrate as many ways as they can think of to create rhythms on a tambourine.
- As a means of vocal exploration, ask preschool children to individually create all of the sounds they can imagine coming from a shopping mall.
- Ask the high school performance ensemble how the seating or riser arrangement could be redesigned to accommodate a very unusual performance setting. As with all brainstorming, give answers quickly with no judgments on the first run through.
- The staff at the middle school would like to collaborate for a March PTA presentation that would share with parents learning across the curriculum. Ask your music students to brainstorm topics that could be used as an umbrella title for this sharing. After the faculty has agreed on a theme, ask your students to brainstorm music selections that fit the topic and that they would like to learn and perform for the meeting.

* * *

Sequencing

- Ask the performance ensemble to determine the sequence of dynamic levels in a designated section of a piece. Write the dynamic sequence on the board. Use this same dynamic sequence as part of a warm-up activity.
- Write the rehearsal pieces on the board. Ask the students to determine why the pieces were put in this order (sequence). It could be "simple to difficult," "familiar pieces to new pieces," "slow, fast, slow, fast," and so on.

- Teach a folk dance or movement sequence by pointing out to the students the various sections in the directions. If possible label these "A," "B," or "part 1" and "part 2." At the next lesson ask the students to recall the directions for the dance or movement by remembering the ideas in the correct order or sequence.
- Ask students to create a simple composition with three sections. Ask the students to perform the piece and explain why each section was different from the others. The order or sequence of the sections may be determined by changing the tempo, dynamics, key, and so on.
- After primary children know "I Bought Me a Cat," ask them to draw pictures of the animals in the song and place their pictures in the order of the verses. On another day invite them to sing the song with the verses in the correct sequence without the aid of the pictures.

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Analyzing

- Ask students to look through a piece before singing or playing it to find the musical "road maps" such as *D.C. al Fine* or a first and second ending.
- Ask the high school performance ensemble to listen to a recording of themselves. Discuss the balance between the sections.
- Have the class view a video of Yoruba singing, drumming, and dancing. Ask the students to individually list what they learned about the music and the culture from this tape. What other questions do they have about the music or the occasion?
- Have a string player look closely at a musical passage and mark the bowings.
- Have elementary students find repeated tones in a melody by looking at the notation or listening to a recording.

* * *

Synthesis

- Have the students in a performance ensemble share with the audience what they know about correct technique, musical expressiveness, and the cultural and historical significance of a piece before they perform the selection in public.
- Have a student compose and perform a selection in duple meter, sixteen bars long, in pentatonic, and with a moderate tempo.

- Ask the students in the elementary class to put together singing a song, the folk dance that goes with it, and the mallet parts they have created as accompaniment. Make the event as musical as possible.
- Ask students to improvise an ostinato for a pentatonic song.
- Invite the jazz band to perform a concert using the techniques and skills they have developed.

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Evaluation

- Ask the students to listen to live performances or recordings of the examples listed under *Synthesis*. Discuss the elements of each performance that they felt were expressive or technically well done. Ask for suggestions about how to improve the performance.
- Have two recorder students work on a short song. Ask the students to play the piece for each other and engage in *peer assessment*—commenting on what is being done well and how to improve.
- A couple of weeks before a solo and ensemble festival, ask each student to create for you a tape of their own performance of their festival selection. Have each student listen to his or her own tape. After each student has listened, ask each student to engage in *self-assessment*—commenting about his or her performance and what he or she needs to do in order to perform more musically at festival.
- Pass out three-by-five file cards a week before a major PTA presentation. Ask each student to list one thing he or she personally needs to do in order to prepare for the program. Ask each student to also list one thing the group as a whole must do in the coming week to prepare.
- Ask your students to list one thing that they have learned in your music class that they think will contribute to their lives as adults.

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Strategies for Musical Habits of Mind

The ultimate goal of practicing and labeling thinking skills is for students to develop the ability to use these skills independently. When students encounter a new problem and are able to step back and consider thinking strategies with which to attack the problem, this is called metacognition. Students who are able to practice metacognition are aware of having options among thinking strategies as they approach a situation or decision. They are able to examine their own thinking.

When you chose the music-learning outcomes, the specific materials, and the lesson strategies for your students this year, did you follow district guidelines, state mandates, or your own best judgment? How did you seat the students in your classroom? When you look back at how these decisions were made and the thinking that you used to reach the conclusions, that is metacognition—"thinking about your thinking."

As music teachers our goal is to go one step further. We want our students to develop not only the thinking skills necessary for being successful adults, but also the skills for becoming independent musicians. In order for this to happen,

- students must first see us, as teachers, model the habit of thinking musically;
- then they must practice using and labeling thinking skills in the music classroom;
- and then, students will develop musical habits of mind, or the ability to think about the thinking that's involved in making music.

Once students develop musical habits of mind, they are confident to approach a new piece of music. Students will know from habit and practice how to analyze the score. Students will brainstorm from their personal lists of possibilities about how to solve performance problems. They know how to search for and evaluate background information and how to assess the overall expressive qualities of the music. From their experiences in the classroom practicing and labeling thinking skills, musical decisions and expressive choices are ingrained as habits of the young musicians' minds.

Practicing and labeling thinking skills as part of music instruction gets teachers one step closer to our goal of developing students with a fierce love of making music and empowering them with independent skills necessary to continue that pursuit for life.

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