

Teaching for Independence

Midwest International
Band and Orchestra Clinic

1:30 p.m., Thursday, December 17, 2015



"Teaching for Independence" is a little phrase that neatly sums up my teaching philosophy in instrumental music. If I do my job well, my students eventually won't need me anymore. No matter how long I have them, when they leave me, I want the skills and knowledge they have acquired to be a practical, useful foundation for whatever musical endeavors they pursue next, whether that is moving on to a new director in a new school, or leaving the school program and pursuing another musical avenue on their own.

Carole Smith Grooms

Freedom Middle School
Franklin, TN

carolegrooms@gmail.com

www.teachingforindependenceblog.wordpress.com

The seeds of this clinic were planted 15-20 years ago, as I pondered the great difficulty I was having when teaching my beginning students to read and count the dotted quarter note/eighth note combination. The method book I was using at the time presented this note combination *before* it introduced single eighth notes and eighth rests. The root of the problem was that the students did not first have conceptual understanding of dividing the beat into two halves. This realization began my quest to sequence my instruction so that I taught nothing for which the necessary underlying concept was not in place to support the new information.

Concept-Based Teaching

Is the key to developing independent musicians.

Who does that list of expectations, left, apply to? Intermediate learners? Advanced learners?

It applies to **ANY** level of developing musician, whether beginning, intermediate or advanced! It especially applies to beginners if you want them to turn out to be independent musicians in the long run. The only difference is the degree of complexity in what is being taught.

What does an “Independent Musician” look like?

- They have well-developed music reading skills supported by a strong sense of internal pulse.
- Music theory knowledge is a natural extension of their music reading skills.
- They practice effectively and monitor their progress. They know how their instrument works and how that might impact the particular problems they are working out.
- When playing in ensemble, their strong reading skills along with their defined ensemble skills allow them to reach their group performance goals more quickly.

What IS Concept-Based Teaching?

In concept- based teaching, you use the content as a means of leading students to discover the rules and generalizations that govern the topic. You still teach the same content, but you go deeper than the labels and facts from the beginning – you teach WHY things are as they are from the start.

Nothing new is introduced that is not carefully connected to prior learning (whether that is prior music learning, another academic subject, or just life.) Careful attention to the sequence of instruction ensures that gaps in understanding are minimized.

After the initial introduction of new information, concept-based teaching is also concerned with how you continually reinforce and review the underlying concepts behind everything you address, whether correcting mistakes and misunderstandings or adding more new information.

The most successful concept-based teaching also has the brain in mind. It considers what cognitive neuroscience research has discovered (and continues to discover) about how the brain learns and forms memories.

Fact-Based Teaching

Emphasis is on identifying, labeling or naming.

Emphasizes memorization.

Generalizations and concept understandings are inferred by the learner over time.

Emphasis on raw repetition (drill & kill.)

Concept-Based Teaching

Starts with connections to prior learning.

Emphasizes knowing *why*.

Allows students to take facts and skills *beyond* the lesson in which they were presented.

Sequence of information is priority. Students must learn new ideas in reference to ideas they already know.

Concept-Based Teaching

Is in contrast to
Fact-Based Teaching

When planning for concept-based teaching, think -

MACRO to **MICRO**

BIG IDEAS before **DETAILS**

John Bransford, education researcher who edited the book *How People Learn*, one day asked a simple question:

“In a given academic discipline, what separates novices from experts?”

Through research Bransford eventually discovered six characteristics, one of which is:

“[Experts’] knowledge is not simply a list of facts and formulas that are relevant to their domain; instead, their knowledge is organized around core concepts or ‘big ideas’ that guide their thinking about their domains.”

From *Brain Rules*, by John Medina

“How does this apply to me? Can I use this?”

How you use the information from this presentation will depend upon your teaching situation. If you have the luxury of starting beginners, you can teach from a conceptual basis from the very first day, producing students with a solid foundation of skills. If you inherit students who have received prior instruction elsewhere, you may or may not find a solid foundation of skills in place. What you learn from this presentation can help you determine where you need to fill in gaps in understanding and how to go about doing it.

How were you first taught? Fact-based approach or with full concept explanation? Does this influence how you teach now?

Can you identify in your own teaching now when you are using a fact-based approach vs. a concept-based approach?

About Beginning Method Books –

- They are usually written with a fact-based approach (out of necessity.)
- Multiple facts with different and unrelated underlying concepts are often presented on the same page.
- Sequencing of information presented doesn't necessarily consider whether underlying concepts for understanding are already in place.
- There is no "ideal" or "perfect" method book.
- The problem is in how we use them, not how they are written.
- The method books are NOT your curriculum; they only support it and help you implement it.

A Comparison of Sequencing in Method Books:

Essential Elements Book 1, page number	Sound Innovations Book 1, page number	Standard of Excellence Book 1, page number
3-STAFF, BAR LINES, MEASURES, LEDGER LINES, ONE CLEF, LINE/SPACE NAMES IN ORDER	4-STAFF, BAR LINES, MEASURE, QUARTER NOTE/REST, LEDGER LINES, ONE CLEF, LINE NOTE NAMES-SPACE NOTE NAMES SEPARATELY	4-STAFF, BAR LINES, MEASURE, TIME SIGNATURE 4/4, LEDGER LINE, ONE CLEF, LINES NOTE NAMES-SPACE NOTE NAMES SEPARATELY
4-BEAT-PULSE, QUARTER NOTE / REST	5-TIME SIGNATURE 4/4 WHOLE NOTE/REST	7-HALF NOTE/REST
5-TIME SIGNATURE 4/4	7-HALF NOTE/REST	8-QUARTER NOTE/REST
6-HALF NOTE/REST	10-TIE	10-TIE, 2/4 TIME SIGNATURE
7-WHOLE NOTE/REST	11-2/4 TIME SIGNATURE	13-EIGHTH NOTE PAIR
9-PICK UP NOTE	14-EIGHTH NOTE PAIRS	15-PICK UP NOTE
10-EIGHTH NOTE PAIRS	17-PICK UP NOTE	17-DOTTED HALF NOTE, 3/4 TIME SIGNATURE
11-TEMPO, 2/4 TIME SIGNATURE	19-TEMPO	26-DOTTED QUARTER NOTE/EIGHTH SINGLE EIGHTH NOTE (NO REST)
14-TIE, DOTTED HALF NOTE	22-DOTTED HALF NOTE	31-TEMPO
15-3/4 TIME SIGNATURE	22-3/4 TIME SIGNATURE	
22-DOTTED QUARTER NOTE/EIGHTH	24-SINGLE EIGHTH NOTE/REST	
31-SINGLE EIGHTH NOTE/REST	26-DOTTED QUARTER NOTE/EIGHTH	
	27-SYNCOPATION	
	40-CHANGING METER	

My preferred sequence for first-year instruction:

RHYTHM INSTRUCTION

1. Define "music notation."

Explanation of how notation shows two separate things – "when" to play and "what sound" to play. We will learn them separately before doing them together.

2. Pulse and Steady Beat, Tempo

3. **Staff** (that all five lines are not needed yet and why)

4. Measures, Bar Lines

5. **Time Signature – top number only**, 2, 3 and 4. Visualizing the steady beat under empty measures.

6. Note/Rest symbols

7. **Time Signature-bottom number** (explained for three possibilities, but only using one in practice for now.)

8. Reading 4-measure rhythm line with **quarter notes/rests ONLY**.

9. My system of sight-reading rhythms with beat numbers written below, clapping, saying on syllables.

10. **Half notes/rests** added

11. **Whole note/rest** added

12. **Tie, Pick-up note**

13. **Dot after a note**

14. **8th note pairs**

15. **Single eighth notes/rests**

16. **Dotted quarter note followed by eighth note....**

PITCH INSTRUCTION

My preference is to wait to begin pitch reading instruction until rhythm reading instruction has reached the whole note/rest values, no. 11, and instruction pauses there for some time to solidify understanding and skill with much practice and repetition.

1. The **musical alphabet A-G**

2. The **staff**, alphabetical order of notes placed on alternating lines-spaces, ascending and descending. The **ledger line**. (Not yet necessary to use the actual line/space names matching the clefs to be used.)

3. The concept of "a **clef**" naming one note on a staff first. Then introduce all by letter name before common name. (The moveable clef is best to teach the underlying concepts.)

4. Concept of steps and skips, ascending and descending, and what they look like on the staff.

5. Extensive practice naming notes.

6. The "note modifiers," **flat sign** and **sharp sign**.

7. **Enharmonic tones** - the "in between notes that have two names," using the piano keyboard to visualize. Follow by transfer to the fingering chart or fingerboard chart.

8. The **natural sign**, the "**carryover rule**" for accidentals in one measure....

INSTRUMENT INSTRUCTION

My preference is to not touch the instrument before completing rhythm instruction through the whole note/rest, no. 11 at left, AND pitch instruction through no. 5. Get the time-consuming rhythm and note-reading concept formation out of the way. Once the instrument is included, the students will grow impatient and will want to spend more time playing than doing reading exercises. After the initial music reading foundation is laid, I begin every class with rhythm work (the "bellringer,") both old and new, usually lasting no more than 10 minutes.

1. **Playing posture**, breathing "on purpose."

2. (Winds) **tone production** with mouthpieces only, breathing. First conducting gestures for "instruments up," "play-start sound," "cutoff-end sound."

3. Proper **assembly, hand positions** and "**home base keys**." For woodwinds, I teach not "what fingers to put down," but "what fingers to lift up" from the home base position.

4. **Tonguing**, on the mouthpiece only before on the first tone learned.

5. The **first five tones** that will appear in the method book I am using, taught as Do, Re, Me, Fa, So, rather than note names at first.

6. **Ear training**, playing by ear, call and response (with proper tone production and articulation.)...

Examples of what concept-based instruction IS or IS NOT:

IS NOT: "This is a time signature. The top number tells you how many beats are in a measure, and the bottom number tells you what kind of note will represent one beat."

IS NOT: "This is the Treble Clef and you can remember the names of the lines on a treble staff by saying Every Good Boy Does Fine, and remember the spaces because they spell F A C E."

IS NOT: When you correct (for the 50th time) a missed accidental that is carried over in a particular measure.

IS NOT: When you introduce the 6/8 time signature as having two beats per measure.

IS NOT: When you simply say "flutes you need to play louder in measures 5 – 8; everyone else be sure not to cover them up."

IS: When you present the idea in sound and feel BEFORE the symbol by listening and moving to various music examples, finding the steady beat, determining if it feels like it falls into groups of twos or threes. You don't need to use the term "measure" until they know what equal groups of steady beats *feel like* – only when you show them what it *looks like*. You teach the function of the top and bottom number of the time signature separately, at different times, relating each back to concepts that must be in place BEFORE full understanding of this symbol can take place.

IS: When you first teach and practice the concept of naming notes in alphabetical order when moving in alternation from line to space to line, ascending and descending. The concept of "clef" is taught first. Without a clef, the lines and spaces have no names! Introduce them by their letter name ("G clef") before their common name (treble clef) because the letter name illustrates the underlying concept of how any clef works. Naming the lines and spaces is LAST.

IS: When you point out the note in question and ask the student what the note should be and why. They should be able to tell you the rule and how it applies. Previously, you should have taught the definition of "accidental" in isolation (followed by practice simply identifying accidentals in various music examples, using correct vocabulary.) After that, you have taught the "carryover rule" and have had students practice identifying it by presenting both examples and non-examples. Both of these lend themselves to a worksheet for reinforcement. Don't just correct, reinforce the concept by asking the students "why."

IS: When you build on your previous teaching of the function of the bottom number of the time signature by starting with six beats per measure.

IS: When you address WHY the flutes need to be heard in measures 5 – 8 when making the correction. Early in preparation you identify the melody with all, regardless of what instrument plays it when. Teach students the various compositional roles that may be present – melody, harmony, accompaniment, etc. Have them note compositional roles on their own part, whether it is theirs or another section's. Lead them to make the appropriate balance adjustments on their own by developing their awareness of ensemble roles.

**CONCEPT-BASED
TEACHING
TAKES ON TWO BASIC
FORMS:**

**DEDUCTIVE
AND
INDUCTIVE**

The Deductive approach uses direct instruction – basically, you give the students a rule and ask them to apply it. This method is usually quick to apply. Giving many examples and non-examples is a key factor in any concept-based approach, but I particularly like to use theoretical examples to build concept understanding. The deductive approach lends itself well to this.

The Inductive approach is based on inquiry and can be the most effective. You guide students with questions or tasks, like looking for something in common, or looking for patterns. This does take a little longer to apply, but leads to greater retention because students discover the information for themselves. This does not mean that the teacher does not have to present the factual content. You just present it AFTER the initial discovery process, clarifying and correcting any misunderstandings, properly labeling things. Like the deductive approach, using examples and non-examples is very important.

Why does it matter whether students get their information from a deductive process or inductive process? **MEMORY FORMATION** Which process you use and how you implement it will determine if lasting memory of the concept forms. We want to teach in such a way that students remember everything they've learned well enough to use it on their own.

We should think more about how information goes IN than about how we get information OUT. (In other words, think more about how we present the information instead of only about how to assess it.)

ENCODING – The moment information enters the brain. How information is initially encoded determines whether or not learning will stick. Neuroscience has proven this counterintuitive principle:

The more elaborately we encode information at the moment of learning the stronger the memory.

"Elaborately" doesn't mean more facts, more labels, more details. It means more "why," more connecting to prior knowledge, more examples. You don't start with the details. You start with the big ideas – the concepts – and gradually work your way down to the details.

MEANING is the key to making information stick. The big idea that is in place first is what gives details **meaning**. **The more you focus on meaning, the more elaborately the encoding is processed by the brain.**

REPETITION is essential, however not just simple RAW repetition. Cognitive neuroscientists have proven that regularly spaced repetition interspersed with other activity and teaching, is the best way to form a useful long-term memory. This review is not an exact copy of the initial instruction, it is more elaborate, with more examples, and includes references to the underlying concepts. Scientists call it **reinstatement** - I call it **reteaching**.

STRATEGIES THAT ARE IMPORTANT TO ME IN CONCEPT-BASED TEACHING

- Constantly, refer to **WHY** for everything you are working on, even in the form of quick reminders as “teachable moments” come along. Concept-based teaching should include lots of good questioning of students as a means of continually referring back to the underlying concepts that have been introduced.
- Whenever possible, have students do or show **externally** that which in performance will only happen **internally**. Anything that we want to happen internally must begin externally. You can't tell if it is there unless you can see or hear it in some way.
- Whenever possible, break things apart. Separate the parts of the whole, teaching, re-teaching and/or practicing them in isolation.
- Using examples and non-examples is very important, but pick carefully what examples you use. Contrast typical examples with atypical, critical examples with non-critical.
- Band and orchestra directors love **ANALOGIES**! Analogies help to incorporate prior knowledge, but **ONLY** if discussed and articulated. The younger the student, the more in-depth this discussion needs to be. Analogies are comparisons just like similes and metaphors, but analogies are great for concept-based teaching because they are, by their very nature, making a comparison on the conceptual level.
- **Implement** to elevate understanding. Have students USE recently acquired knowledge in several different kinds of applications.
- When you are first teaching new information, incorporate as many **modalities of learning** as possible – visual, aural, kinesthetic.

Last but not least: DETAILS after the BIG IDEAS:

SEQUENCING OF INFORMATION IN TEACHING MUSIC READING

INCORPORATING THEORY SEAMLESSLY INTO INSTRUCTION

WHY WE SHOULD TEACH CONDUCTING AND HOW TO DO IT

WHY WE SHOULD TEACH SCORE READING AND HOW TO DO IT

TEACHING ENSEMBLE SKILLS SEPARATELY AND DELIBERATELY

TEACHING PRACTICE SKILLS – HOME ASSIGNMENTS AND OTHER
ALTERNATIVES TO THE PRACTICE LOG

PROMOTING OWNERSHIP BY INCORPORATING SELF-EVALUATION AND
PROGRESS MONITORING

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For a full list of detailed examples of how I incorporate these concept-based teaching strategies and a list of references and resources, go to my website.