

The Technique of Teaching Interval Recognition – Dan Jones Feb 2010

The following is a method of teaching students to recognize intervals, played harmonically (as a chord, not split) within the octave and, ultimately, as compound intervals. I have developed this system through trial-and-error over many years of working in the junior and senior colleges at the RWCMD.

I recently used two groups of students as guinea pigs for a 'before and after' experimental session. For this experiment, I gave them an interval test at the beginning of the session, taught them my method and finally, tried another test at the end of the session. The results were very positive (see results at the end of this article). I very much want to share these ideas with my colleagues, hopefully to the benefit of all our students.

Common Techniques

Firstly, I'd like to look at why many existing techniques fail. A worryingly high percentage of students express anxiety, misunderstanding and even anger when presented with an intervals exercise. There is often a destructive belief that the exercise is meaningless and that the ability to complete the task was either something you could do naturally, or that you would never do with any success. When I asked students which technique they used when attempting interval recognition, the following were the most common answers:

Technique 1: To use popular songs which start with a certain interval.

A good example is *My Way* which starts with a major 6th.

Why this method fails. Try this experiment with your class: invite them to 'lah' the opening line of *My Way*. Go to the piano and play a perfect 5th rather than the correct major 6th as a cue for the first 2 notes. The majority of the group will sing *My Way* quite happily starting with the 5th you give them. This obviously renders the technique completely unreliable as we will naturally fit a melody to what we hear, as long as the interval is appropriately consonant.

Technique 2: To sing up a scale until the correct interval is reached.

Why this method fails. The student will nearly always sing a major scale, regardless of the interval being tested. Asking someone to find a minor interval from a starting point of a major scale involves three stages: firstly, the separation of the two notes, secondly, the singing of the major scale and thirdly, making a semitone adjustment when the adjacent major interval is reached. This is both difficult and unreliable. Students often modulate during the sung scale in order to adjust to the interval they are hearing without realising they have done so.

The Problem

The problem with these techniques is that they bypass the very reason why we learn intervals. In fact, they bypass music. Intervals are the basis of harmony and the expressive devices which we *love* to discuss. Why is it that playing *Maria* from *West Side Story* will open a fruitful discussion about the poignancy and emotional power of the diminished 5th resolving upwards by semitone to its perfect neighbour, but the same intervals tested in isolation arouse scepticism? The answer lies in:

Discussing, learning and enjoying the *expressive qualities* of intervals.

We have no problem in discussing the emotional content of a Beethoven string quartet or piano sonata, so why not intervals? It seems that we, music teachers, are the ones who divorce intervals from their musical power.

The Technique

Start by giving students an *Empty Interval Flow Chart* (included with these resources).

Then invite a discussion where students listen to the *expressive qualities* of each interval. Ask for non-technical language, as if they were appreciating a piece of music. It is important to allow each student to have their own interpretation of each interval, as hearing is subjective. You should find a general trend though similar to the following. *All of the descriptive observations written below are words used by students in my tests:*

INTERVAL	COMMENTS
MIN 2 nd	biting, jagged, hard, beating, aggressive, nasty
MAJ 2 nd	calm, open, unresolved
MIN 3 rd	dark, bluesy, sad
MAJ 3 rd	resolved, sorted, stable, clean
PERF 4 th	open, dreamy, spacious
DIM 5 th	nasty, evil, unstable, unresolved
PERF 5 th	fanfare, trumpets, confident, pure
MIN 6 th	tragic, tango, dark
MAJ 6 th	bright, happy, leaping
MIN 7 th	unresolved, spacious, uncommitted
MAJ 7 th	strained, tense, pulling
PERF 8 ^{ve}	clean, open, pure

From this, intervals fall into four categories. For ease of memory, they can be labelled in groups beginning with 'N': **Nice, Nasty, Neutral and Nostalgic.**

INTERVALS IN CATEGORY	CHARACTER
MAJ 3 rd PERF 5 th MAJ 6 th PERF 8 ^{ve}	NICE
MIN 2 nd DIM 5 th MAJ 7 th	NASTY
MAJ 2 nd PERF 4 th MIN 7 th	NEUTRAL
MIN 3 rd MIN 6 th	NOSTALGIC

Write these group names in the 4 central empty boxes on the flow chart and then draw a line from each group to its appropriate intervals. You may find colour useful here. You will eventually have a flow chart like the *Complete Interval Flow Chart 1* (see resources) .

A word of warning. Avoid the temptation to *tell* the students what each interval is like and then hand them a completed flow chart. This defeats the purpose of the exercise. The idea is to get them listening to and discussing intervals in a musical and enjoyable way. The process should take at least 15-20 minutes. The final result looks chaotic, but the students have spent *time* with each interval.

You can now give them a copy of *Complete Interval Flow Chart 2* (see resources) with intervals sorted into expressive groups rather than as a chromatic scale. It looks far more manageable.

Next, listen to the intervals in just one expressive group. I think the most accessible is the 'nasty' group. Discuss the differences between each interval within this group. The difference between them can be explained by perceiving distance. Therefore, the intervals within this group can be defined as:

'NASTY' GROUP	MIN 2 nd	Close
	DIM 5 th	Middle
	MAJ 7 th	Broad

The minor 2nd is very tight, the diminished 5th perfectly bisects the octave and the major 7th feels very broad. Verbally practice each group in isolation. I have found the most difficult the 'nice' group, so maybe do this last of all. You can see that these 'distance' and some expressive descriptions are imposed on the lines in the *Complete Interval Flowchart 2*. Once students seem comfortable with single group tests, test 2 groups at a time and so forth.

As groups are being examined, point out that to mistake a diminished 5th for a major 7th is a more logical error than mistaking a major third for a minor third. Some assessments give a 'half mark' for identifying a minor interval as its major equivalent or vice versa, as they are

'close'. To me, this encourages an illogical way of thinking as, expressively speaking, a major 3rd is miles away from a minor 3rd.

In my experience, this method has positive results very quickly (within an hour). Of course, like any other technique, it needs to be practiced. Spend many weeks reminding students of the interpretation demonstrated on the flow chart.

Results of Tests:

I have used this method on many occasions with positive results. I have carried out two classes with students where I was able to gather evidence by testing a group before and after teaching them the method. For the test, I simply asked them to recognise 10 randomly-selected intervals, played as a chord (both notes simultaneously), at the beginning and at the end of the session. The first test was with a group of 12 students in a Junior Music class (a specialist Saturday school). They were 16-18 years old. The second group consisted of 20 volunteer students from the RWCMD senior college, with all years of study represented.

JUNIOR MUSIC CLASS (JMAS)

- Average result before teaching the method: 42%
- Average result after teaching the method: 90%

CLASS WITH VOLUNTEER SENIOR COLLEGE STUDENTS

- Average result before teaching the method: 61%
- Average result after teaching the method: 75%

In both cases, there was a much higher score achieved after the teaching. In the case of the less-experienced JMAS class, the improvement was dramatic. I feel the level of improvement with the senior college students appears relatively modest because a number of attendees were interested in the pedagogy and they did not struggle with interval recognition with the first test.

Of the 32 students tested the following also makes interesting reading:

- 27/32 achieved a higher score after the teaching
- 4/32 achieved an identical after the teaching
- 1/32 achieved a lower score after the teaching! (This is perhaps unrepresentative as he achieved 10/10 in the first test and 9/10 in the second test).

Therefore 84% of students improved their performance in less than 1 hour.

I also asked the students to leave comments anonymously. Here is a selection:

- *Very helpful! I can clearly identify groups, identifying chords will come soon!*
- *I felt it slightly helped. With extra work I believe it could work.*
- *Very useful session, thanks!*
- *My normal method is very inconsistent and unreliable, I am much more confident using this way.*
- *It's another way to look at it to give me confidence that what I think is right.*
- *I was worse the second time!*
- *Nice method with a close relation to feelings.*
- *Quicker response second time around.*
- *First test I guessed so the system REALLY helped! Thank you.*

It's very important to say that I am not offering a miracle cure. I do believe though that this technique offers a logical method, but like all techniques, it needs to be practiced. I should also point out that some students found the methods which I believe to be unreliable perfectly good, and used them with success. Whatever approach you take, I sincerely hope that these resources will help your students, as they have helped many of mine, and that this will be a powerful tool to make us more effective teachers.

I'd love to respond to feedback or questions, so please do contact me via my website:

www.danjonesguitarist.com .

Dan Jones April 2010