Establishing rhythmic foundations

VMT

Edward Maxwell

Introduction

There are few things more excruciating than hearing a student stumbling through a performance without any sense of rhythmic flow. They may be playing all the correct notes, but if there's no sense of linking them together in musical phrases, or a lack of momentum, it will be inexitably painful to hear.

Rhythm is the lifeblood of music, and at its foundation is the human pulse. It's no coincidence that we use the words 'beat' and 'pulse' both musically and physiologically: beyond its superficial ticking regularity, a pulse performs a crucial role in keeping us – and music – alive. A rhythm over a steady pulse gives music its vitality, purpose and sense of direction.

Students often prioritise correct pitches over correct rhythms, and the phrase 'wrong notes' is in common parlance. You seldom hear people complain, however, about wrong rhythms or an elastic sense of beat, even if these are usually catastrophic in a performance, especially when playing with other people. A 'right note' in the wrong place is all wrong, whereas a 'wrong note' in the right place is still half right, and won't necessarily compromise the fluency of a performance.

In this resource, I'll be exploring how we can establish secure rhythmic foundations in our students. These cover two distinct areas: how we develop an innate sense of rhythm and beat, and how we approach teaching students to read rhythms fluently.

Although this resource is primarily aimed at instrumental teachers, many of the practical exercises will be very effective in group situations, so can be equally useful for class teachers: as any football fan will testify, rhythmic chanting and clapping in a large group can be fun and infectious.

The roots of rhythm

Making music is a primeval human trait. We've expressed ourselves by singing and dancing for tens of thousands of years, in every culture around the world. There's even evidence to suggest that Neanderthals also had primitive instruments. Singing and dancing provides a useful model for teaching music: words create their own rhythms, and moving in time with music helps to develop an internal sense of rhythm and beat, along with the physical coordination required to play a musical instrument.

Pulse, beat and rhythm

We may all have slightly varying definitions of pulse, beat and rhythm, which may go over a student's head, so rather than getting bogged down with semantics and nuanced definitions, it's best to keep things practical.

The most fundamental thing to establish is a sense of beat, which provides a framework for secure rhythmic foundations. You can't have an accurate rhythm without a strong pulse and a feel for the beats of the bar.

Establishing pulse

Play a student some music, and ask them to clap the pulse. It's quite common for them to copy the rhythm, especially if the piece features repetitive rhythms, such as 'What Shall We Do With the Drunken Sailor?'. If they find it hard to separate the pulse from the rhythm, ask them to march in time with the music and clap on every footstep.

To see if they can maintain a pulse, ask them to clap the pulse (or walk in time) over some recorded music. Then suddenly turn down the volume for a few beats. When you turn the volume up again, are they still in time with the music? Gradually increase the gaps.

Edward Maxwell is a freelance trumpet player and teaches in primary, secondary and higher education, including at Cranleigh School, Hurstpierpoint College and Reigate Grammar School. He is a composer and arranger, and his educational music books have been published by Boosey and Hawkes, Spartan Press, Music Sales and Warwick Music. He is an examiner for Music Teachers' Board.

Beat

The term 'beat' is often used interchangeably with 'pulse', but there's subtle difference. The beat outlines the metre or time signature, so there are strong and weak beats, whereas the pulse is like an unvarying metronome click. A student might be able to lock into a metronome click, yet might cut longer notes or not count rests accurately, and consequently still get out of time. Playing with a sense of beat means counting the overall beats of the bar, and feeling the stronger first beat.

Try singing some well-known songs with your student while clapping the pulse or walking in time with the music. Where are the strong beats? To begin with, it's best to stick to tunes in 2/4 and 3/4 – music in 4/4 can sometimes be hard to distinguish from 2/4. Books of aural tests contain lots of useful material, but of course you can use any familiar or unfamiliar music. 'Jingle Bells' or 'What Shall We Do With the Drunken Sailor?' make good material for 2/4; 'Edelweiss', the National Anthem or 'Happy Birthday' are all in 3/4 (though beware of the rallentando and pause in the middle of 'Happy Birthday' – which might undermine your message about the pulse being steady!).

When clapping the beat in aural tests, students sometimes lock into a pattern of strong and weak beats that doesn't link to the actual music. I've found it very effective to play the piece to them twice and ask them to count the beat out loud, once in two time and once in three time. They will quickly establish the correct one. Encouraging them to do things wrong is sometimes more effective than only ever trying to get things right.

Rhythm

The are limitless clapping games we can do with our students to develop a good sense of rhythm. Here are some ideas to start with:

- Set a metronome going and clap short rhythms, which your student echoes.
- Gradually increase the length of the rhythms they're echoing, to improve their rhythmic memory.
- To add an extra physical rhythmic element, ask your student to tap a beat with their foot, or walk in time with the beat as they clap different rhythms.
- To reinforce the beat, count the beats of the bar together out loud as you clap rhythms, extending the exercise with different time signatures. After initially counting 1, 2, 3, 4 together, try splitting the counts up – for example, you count on 1 and 3, and the student counts on 2 and 4. Or you count on 1 and 4, and the student counts 2 and 3.
- Ask your student to improvise a rhythm over a specified beat, which you then copy.
- Imagine you're having a conversation, improvising rhythms with 'question and answers'. The only rule is that you have to stick to the metronome beat – or the beats you're counting out loud. There are no right or wrong rhythms, but hopefully, in the spirit of an equal conversation, elements of one person's rhythms will be developed by their partner.
- With some students, you can incorporate more complex rhythms, such as syncopation, ties, triplets and dotted rhythms. With others, however, it's best to stick to minims, crotchets and quavers.
- Think of rhythms you find in everyday sounds, such as phone ringtones, adverts (eg the one-note jingle of 'webuyanycar.com'), the clickety-clack of train wheels, not to mention the particular rhythms found in poems, such as the characteristic patter of a limerick.

Rhythm and movement

Rhythms are rooted in physical movement: a huge amount of music has been written for dancing or marching, and moving in time with the music should be encouraged – this can help to reinforce the beat. For most musicians there is a natural sway in their bodies as they play. Seeing over-exaggerated movements can be very off-putting as an observer, but small natural movements show an engagement with the rhythm, and an enjoyment of the music.

Obviously percussionists need to develop particularly good coordination between hands and feet, but all instrumentalists need to coordinate physical movements with the beat. Breathing in time with the pulse is particularly important for singers and wind players, but it's a good idea to encourage string players and pianists to do this too. The physical action of lifting the bow should linked to the beat: breathe in and lift on the upbeat, then breathe out and bow on the downbeat. Pianists can develop their coordination by tapping the rhythm each hand plays on the piano lid or on their thighs, hands separately and then together.

Think of ways in which your student can physically engage with the rhythm and beat. Rhythmic problems can sometimes be caused by problems with coordination rather than an innate lack of rhythmic ability. A student may clap a rhythm perfectly, but when they try to play it, it may fall apart, perhaps because they have poor motor skills that need developing. I always build up a piece rhythm first (see the 'scaffolding method' later).

Dalcroze eurhythmics

Émile Jaques-Dalcroze was a Swiss music educator who developed an integrated system for learning music. Eurhythmics is an important part of his method, helping to train the development of motor skills in the entire body. Although eurhythmics activities are usually taught in group situations, there's much that you can incorporate into instrumental lessons. Particular body motions can be linked to particular rhythms. Walking, jumping, dancing or bouncing balls to the music are all aspects that a creative teacher may wish to use. There are plenty of online resources you may wish to explore.

Foot tapping

This can be a controversial area. Some people think you should feel the beat internally, and that tapping a beat with your foot should be discouraged. Certainly chronic foot-tappers can be extremely irritating, especially if you're sitting next to them on a wooden stage and can feel the vibrations. I've played in professional ensembles when the musicians are playing perfectly in time, but I've seen feet moving at fractionally different times, which is both off-putting and baffling.

Personally, I encourage my students to tap a beat with their foot, for a number of reasons:

- It gives a strong physical feeling of the beat.
- It aids general coordination skills, helping the student to simultaneously distinguish between the rhythm and beat.
- It enables a teacher to monitor how the student is feeling the beat. Is the foot moving completely metronomically, or does it mirror the rhythm? Does it maintain the beat when playing dotted rhythms and syncopations?
- When a student is not playing in time, asking to tap the beat invariably improves their performance.

When the general coordination skills of tapping a regular beat have been mastered, it's important to downgrade this to tapping your toe inside your shoe. Some students have a habit of stamping their heel, which is less subtle and generally more intrusive. It can also interfere more with posture: heels should generally be rooted to the ground.

Remote teaching

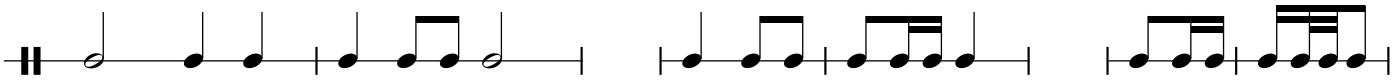
When teaching remotely during lockdown, I missed the opportunity to click a beat with my fingers or tap a pencil against the music stand. While some students were able to perform rhythmic exercises with a metronome (there are plenty of free metronome apps if they don't have a physical one), others drifted away from the beat. Asking them to count out loud as they clapped helped to give an extra physical interaction with the beat, which had a more successful outcome.

Reading rhythms

When is a crotchet faster than a quaver?

Before we look at some approaches to learning to read and connect the symbols used to represent different note lengths, let's address the common misconception that quavers are 'fast'. A crotchet at 120 bpm (beats per minute) is faster than a quaver at 50 bpm. Nothing is absolute: reading rhythms is all about note *ratios* divided over our all-important beat, which can literally be any speed. I have also heard people erroneously refer to a beat as 'a second'. All rhythm exercises should be tackled at a variety of speeds.

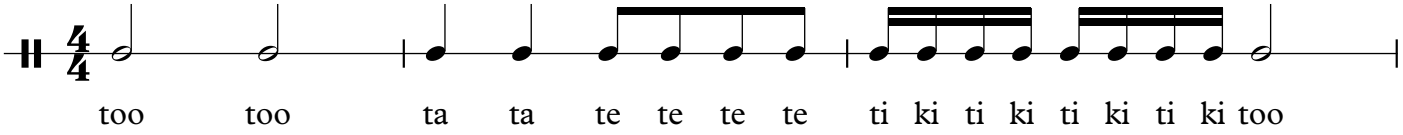
It's crucial to remember that these are all the *same rhythms*, which will sound identical if you halve the speed of the beat each time:



Kodály

Zoltán Kodály created an integrated method for developing musicianship and understanding notation, primarily through singing. His ideas are widely used in teaching, particularly with young students.

He uses different syllables to chant rhythms. Try using the rhythms below in different combinations. Although clapping or tapping a pulse while doing this can help, most students will naturally feel the beat very quickly, especially if participating in a group lesson. Some argue that counting a beat can be a distraction and if focusing on the correct note lengths, the beat will organically develop.

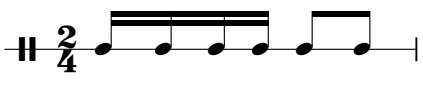


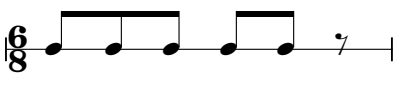
Word rhythms

A good song will follow the rhythmic inflections of its words. Obviously, singers use word rhythms all the time, but it's also a very useful tool for instrumentalists. If your student is playing a song melody on an instrument, do you ask them to sing the lyrics? It's a very useful exercise, not only for working out the rhythms, but also for phrasing and breathing. Language is full of subtlety, and a well-written song will follow the natural rhythms and contours of the words, with the strong and weak syllables following the outline of the beat.

If a piece you're working on does not have words, make up your own. Don't worry if you're not a natural wordsmith. The only important thing is that the words scan to follow the rhythmic outline of the melody. You should take any opportunity to make your lessons fun, and you can have much hilarity with your students making up nonsense rhymes.

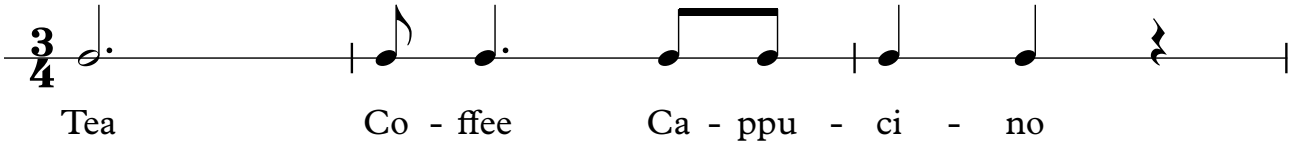
Language is very dynamic, and sometimes words can change their meanings according to their place in a sentence. Likewise, the rhythms of words can change according to the context, or even such things as regional accents. To take a simple example, consider how you would notate Manchester United (in 2/4) and Manchester City (6/8):





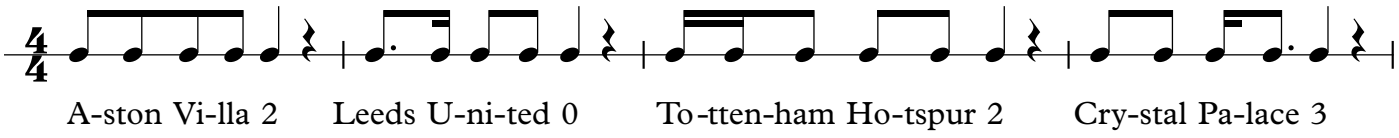
'Pizza' is often used as a word rhythm for quavers, but look how the rhythm changes when we juxtapose it with other words:

It's common to see 'tea' used to teach crotchets, 'coffee' for quavers and 'cappuccino' for semiquavers. However, if I was to link these words together, incorporating a pulse and a metre, I'd probably write:

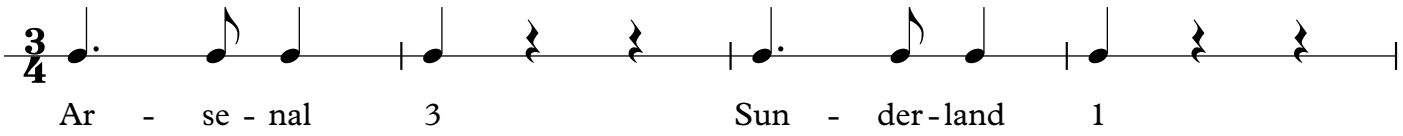


People's names, animals, foods and football teams can all provide rhythms, and the longer the sentences you use, the more you can establish the metre of the music. Think about where the strong syllables are. Is it in 2 or 3 time? Some word combinations have a natural swung or 6/8 feel (eg 'Scooby Doo' or 'Twenty-two'). Does a word have an upbeat (eg lemonADE) or does it start on a downbeat (eg CHEESEcake)?

It's always good to encourage composition. Setting words to music, whether they're a poem, shopping list or football score, is always a good starting point. This provides an opportunity for students not only to feel a particular rhythm, but also to learn to notate it. Here's an example:



By extending the vowel sounds 'aa' in Arsenal and 'uu' in Sunderland, we can teach dotted rhythms:



Subdividing

Word rhythms, and the Kodály method, take rhythms as a whole, rather than working through them systematically. It's rather like teaching children to read with whole words, rather than breaking the word up into its individual sounds: they gradually build up a reservoir of words that they can read.

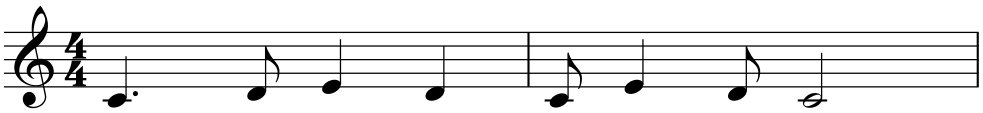
This approach works for some children, but not others. As with all aspects of teaching, we need to be adaptable, and to gain an understanding of how the individual child learns. Some children prefer to learn intuitively, so breaking down a rhythm may not suit them. I've had students who will not engage in clapping rhythms, yet play them perfectly when a melodic shape is introduced.

Personally, I approach music in a very logical way, and I want to break it down into its constituent mathematical units. Some of my lessons end up almost becoming maths lessons, where we work through fractions and ratios – eg a dotted quaver being the equivalent of three quarters of a pizza, and a semiquaver being the remaining quarter. We can then tackle the slightly more abstract challenge of dividing up time.

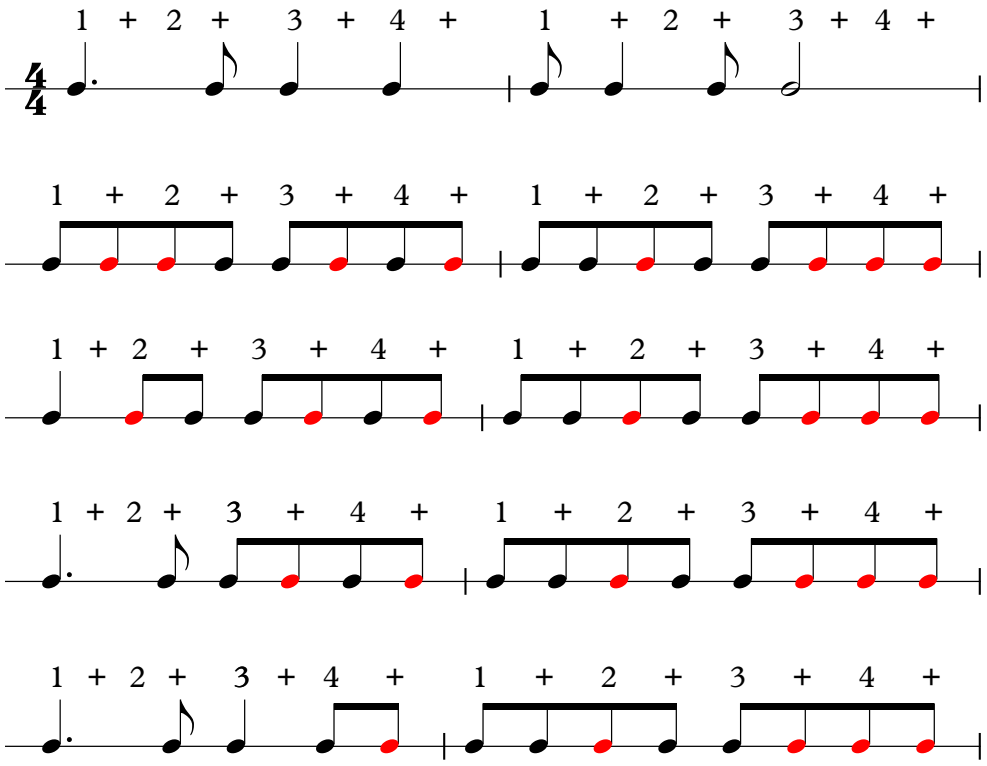
The scaffolding method

To fully understand how a rhythm works, we need to be able to subdivide the beat. My own approach – which I have termed 'the scaffolding method' – is to imagine the rhythm as a building, which is being propped up by lots of extra scaffolding poles. Can we remove the poles one by one to reveal the structure, without it falling down?

Students often find dotted and syncopated rhythms hard, so let's work through the following as an example:



We're going to start with two complete bars of quavers – the red ones are our 'scaffolding poles', which we'll gradually remove. Clap the quavers and count '1 and 2 and 3 and 4 and' out loud as you do this. We keep repeating the process, each time removing one of the coloured quavers:

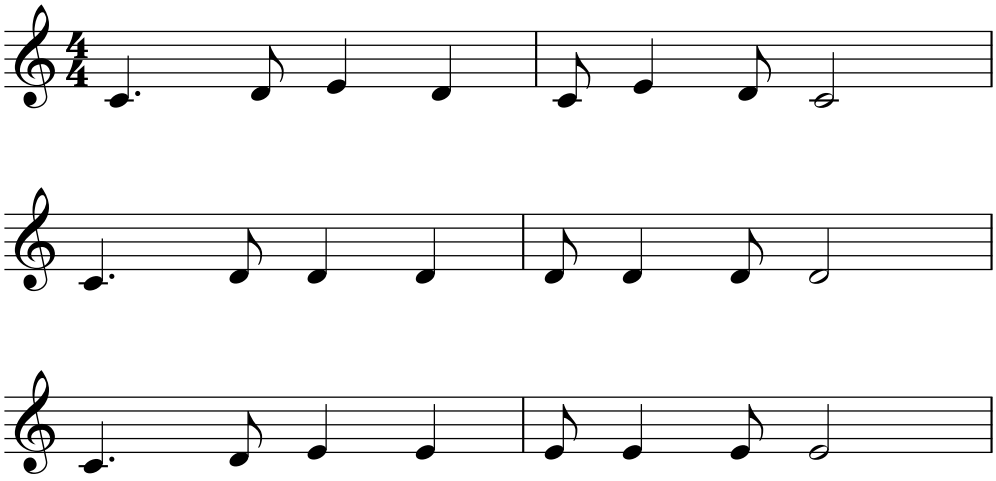


Then repeat a similar process for the second bar.

I do this on an iPad with an Apple Pencil, gradually amending the rhythms as we go. The beats where the quavers have been removed should be particularly strongly emphasised – count a very strong second beat in each bar.

If students find this hard, a preliminary exercise can get them used to the coordination required: repeatedly count 1 2 3 4, 1 2 3 4... and ask them to clap as they say a particular number. For example, clapping on 1 and 4 gives us a dotted rhythm: **1** 2 3 **4, 1** 2 3 **4**, or clapping on everything except 3 gives us syncopation: **1 2** 3 **4, 1 2** 3 **4**.

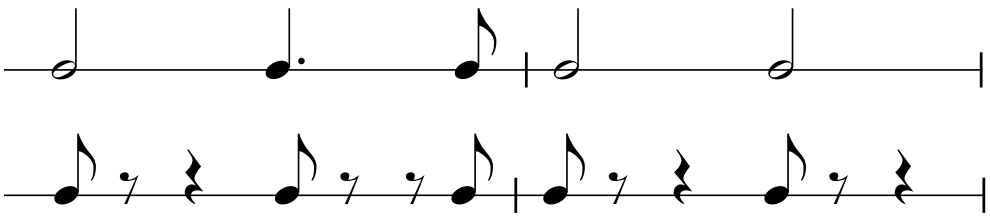
Once the rhythm can be clapped securely, *play* the rhythm on a repeated note. The final step is to add the melodic shape. Play the first two pitches, and play the rest of the rhythm on second pitch. Then play three pitches and repeat, then four. It's rather like carving a sculpture from a solid block – each time we cut away a part of it, we start to reveal the shape we are creating.



Keep going until you've carved out the full melody. If the rhythm starts to waver, go back a step and consolidate.

Note duration

Rhythms are dictated by the gaps between starts of each note. These rhythms, for example, are identical when clapped:

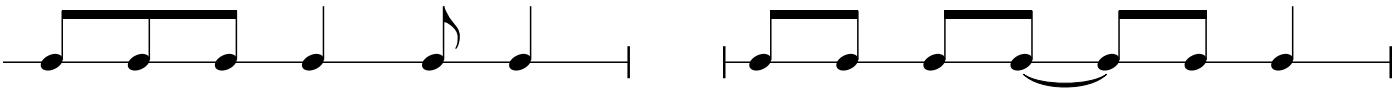


Most rhythm is taught by clapping, a percussive sound that obviously can't be sustained. When playing an instrument that sustains a sound, the timing of the *end* of a note is also important. Rhythmic mistakes can frequently occur from cutting a note short and starting the next one early. If the student has been thoroughly trained to count the beats of the bar, rather than individual note-lengths, this hopefully won't happen.

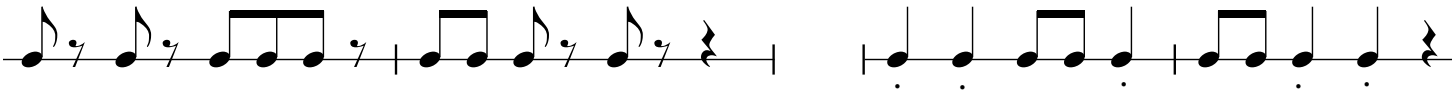
Sing a minim to a student, while clapping a beat. Start singing on the first beat and stop on the third. If you ask the student how long the note was and they will invariably say 'three beats' because they have heard three claps. The answer is, of course, two beats – the note started on 'one' and stopped on 'three'. The confusion arises because we start counting on 'one.' When we're born, we are zero and celebrate our first birthday after a year. In music, after we have had one beat, we are counting 'two'. Students frequently fail to sustain notes for their full length, so, for example, make sure that a minim starting on the first beat of a bar stops on 'three'.

Writing music

Most people read rhythms visually as well as analytically: how it *looks* on the page can make a big difference to how fluently it can be read. Make sure that music is written very clearly and is well spaced. Most music notation computer programmes space the notes very well, but if you're writing music by hand, leave a bigger gap after the longer notes. Make sure that notes are grouped so you can see the beats – especially one and three – clearly. In the first example below, for instance, it isn't immediately obvious where the rhythm aligns with the beat, whereas the second is much easier to read:



One of my bugbears is composers who write a quaver followed by a quaver rest, rather than just a staccato crotchet. The quaver rests often fool students into thinking the notes are off the beat. Make it as clear to read as possible, without the clutter of unnecessary rests:



Seeing where the beat falls (and reinforcing this with a tap of your toe in your shoe) will help to lock more securely into the beat.

Consolidating rhythm and beat

Everything that your students play should be played with a sense of flow and phrase, in which a sense of beat is integral. This includes exercises, scales and even long notes. You can find backing tracks in different keys, which can be used for scales, technical exercises, scale patterns and improvisation. I spend most of my teaching life clicking the beat with my fingers, and if a student is losing the pulse, the beat gets emphasised by a pencil tapped against the music stand.

We've all heard students stumble through sightreading with a complete lack of any rhythmic sense. I do a lot of accompanied sightreading with my students, in order to train them to prioritise rhythm and general momentum over getting every note correct. I would like to see accompanied sightreading as a part of music exams.

Backing tracks, duet parts or accompaniments should be used as much as possible, and students should be encouraged to join ensembles. All these things will teach students that playing to a common beat is non-negotiable. It's essential to keep your place, count the beat and focus on playing correct rhythms. Students who continually get lost will get frustrated and not benefit from the joy of ensemble playing.

Manipulating the pulse

To conclude (and risk contradicting everything I've previously said!), there is, of course, a time and a place where the pulse *can* have a little natural elasticity.

In jazz, a relaxed feel can sometimes be gained from playing play slightly behind the beat, but conversely, a 'stab' note may be played right at the front of the beat. Most (but not all) styles of jazz require swung quavers, and they may be notated interchangeably as a dotted quaver/semiquaver, crotchet/quaver within a triplet, in compound time or – most often – as regular quavers. It must also be remembered that although it's generally played with a triplet feel, swing can range, depending on the context, from being only slightly uneven to being almost dotted. In some early music, quavers may also be played with a slight swing, known as *notes inégales*.

Playing with rubato can, in some contexts, add expression, and while some genres require a robotic beat, others need a natural ebb and flow. I have had exam students whose carefully worked out rubato has received the comment that they played out of time, and while it's always tempting to blame the examiner for missing the point, it's also important to take these comments on board – clearly it was unconvincing, and that was my fault as a teacher.

Whatever the genre, slight variations in tempo or rhythm need to sound deliberate and fully controlled, and, of course, they also need to be stylistically informed.

A complete control of rhythm is always my number one priority: as teachers we need to be adaptable and find different ways to engage and stimulate our students so that they can unlock their rhythmic potential. Beethoven said, 'To play a wrong note is insignificant, to play without passion is inexcusable.' A passionate and energetic performance is impossible without a keen sense rhythm and beat.