

Directing Band WITH Technology, part 4

Or: How a few apps can totally transform your teaching!

James Hargreaves

(This is the fourth installment in a multi-part series designed to help music directors utilize technology and automation to the fullest potential; both in how they organize their programs and in how they educate their students.)

Using the tools of today

For the majority of this article series, our primary goal has been to shed light on the ways band directors can save time and energy by embracing the technology and automation tools available today. Just as our instruments are the primary tools we use to make music, technology has easily become one of the most effective tools we can use to reach and teach our students.

But before we can use technology effectively in our teaching, we must first work to master its use just as we have mastered our instruments. Otherwise, those tech tools become little more than cheap attempts to wow and dazzle our students with more of the shiny screens that already surround them. This is why each article has looked at learning technology through the lens of learning an instrument. As former band students and now band directors, we each went on a voyage of discovery when we first learned to play. As we worked toward, and continue to strive toward mastery of our instruments, the lessons we have learned on our journey can and should be used to help us master the tools of technology in our teaching.

In the first three articles of this series, we mostly highlighted the ways technology could be used outside of the band class: helping automate tasks in the office, streamlining email and website communications, utilizing the built-in features of our computers and tablets more effectively, and organizing our programs with the help of spreadsheet magic.

In this last article, we will finally take a look at a few select apps that can have a more direct impact on your students, helping them improve in a variety of areas: from rhythmic awareness and literacy to tone, tuning, and self-evaluation. While some of these apps may be familiar to you, I hope to shed light on some of their less-known features and help you ultimately see the value their use can have on your program.

Disclaimer: Each of the apps listed below is a vital tool that I use regularly, sometimes daily, in teaching my students. These apps have not paid me to advertise for them and are not, as far as I know, endorsed by TBA. The following are simply my opinions on their use. In addition, I am a big fan of using the Apple iPad in class, projected on the wall and connected to a speaker system. As such, many of the apps we will discuss are only available on the Apple App store although some of the developers have branched out to other platforms.

Apps for Practice. Apps for Rehearsal.

We could easily fill a magazine with lists upon lists of recommended apps for *music education*. Indeed, if you search the App Store for those words, you will find an endless stream of programs, games, and teaching tools that can be overwhelming to search through. The secret to wading through the mass is to zero in on the purpose of the app. Are you looking for something your students can use during individual practice time, something to help you teach a specific skill or concept, or something that would be best used in rehearsals with the entire

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band? Luckily, all the apps listed below could fit into each of those three areas.

Remember that our goal here isn't to simply name a few apps but to encourage you to work towards mastering technology so you can model its use for your students and ultimately help them reach mastery of *their* instruments.

With that in mind, we will, as before, break down each app using the 'Keys-to-Success' approach introduced in the first article.

(For a link to that original article as well as more detailed walkthroughs of various tech tools, please check out my website at: AMBandDirector.com.)



A short recap on the 'Keys-to-Success' approach: *"The secret to mastering any new technology is to approach it in the same way you would when mastering a new instrument."*



Keys-to-Success (for Mastering an Instrument):

1. Evaluate Your **EQUIPMENT**: What can it do? Is it the right equipment for the task?
2. **FINGERING CHARTS**: How does it work? (Use the method book; read the manual!)
3. **TRAIN** with a great teacher: Find help to move your skills to the next level.
4. **PRACTICE**: Experiment with your new skills to gain comfort and familiarity with their use.
5. **TROUBLESHOOT**: Accept failure as an expected part of the learning process. Evaluate what went wrong, find the solution, and try, try again until it works.

Three Apps for a Tech-Friendly Band Rehearsal. Can you *master* all three?

- A Digital Whiteboard: **Goodnotes**
- Daily Drill Assistant: **Tonal Energy Tuner**
- Skill check - Rhythm: **Rhythm Sight Reading Trainer**

Keys-to-Success for Digital Whiteboard Apps in a rehearsal



Using an app like Goodnotes (or any other digital note-taking app), connected to a projector during your band class is a great first step towards using technology in rehearsal. You can use it like a whiteboard to communicate musical concepts visually but with all the benefits of digital (your

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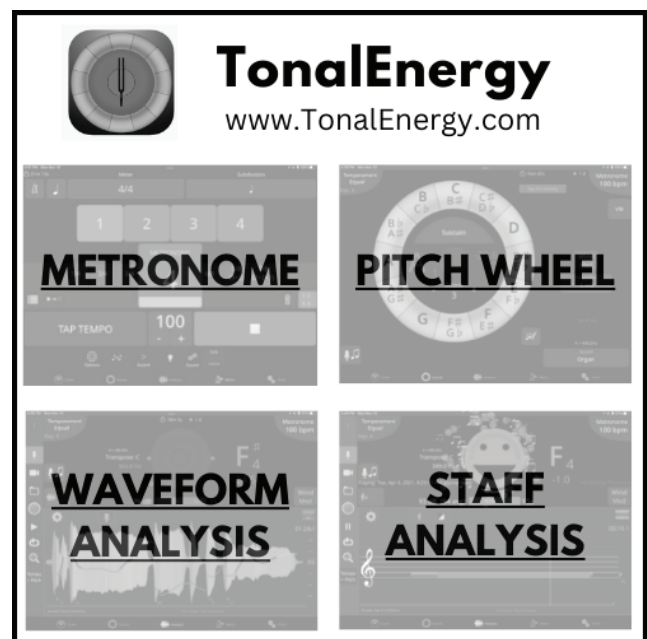
finger becomes the marker, but an Apple Pencil works better):

1. **EQUIPMENT:** In a Digital Whiteboard App, you can save notes in folders for later, copy and paste images, text, and drawings, import music pdfs to display to your class, and use handwriting recognition (with the Apple Pencil) to communicate information more clearly, quickly, and easily. With Goodnotes, you can even use pinch and zoom to focus your student's attention on certain parts of a score while marking accidentals, dynamics, and phrases exactly the way you would want your students to mark their music. Plus, you can communicate the day's rehearsal plan and learning goals, copied and pasted from a lesson plan you typed up on your computer.
2. **'FINGERING CHARTS':** Most apps come with a User Guide and Goodnotes is no different. To get to it, click on the gear in the upper right of the screen, then choose About. This will lead you to several choices, including the UserGuide and a link to the Goodnotes website and blog. If you are considering using Goodnotes, I would highly suggest you first gain familiarity with the layout of the Documents and Folder system in the library, which works similarly to iCloud Drive and Google Drive. Then, start experimenting with the various tools, pen sizes and colors, eraser settings, Lasso tool, and the Elements Tool, which allows you to save drawings you use frequently in a library of easy-to-reach images.
3. **TRAIN:** Goodnotes is a popular choice for notetaking among tech-savvy college students and there are many video tutorials on YouTube that will serve as excellent trainers. Explore these YouTube channels for more: *GoodNotes Official*; *KDigitalStudio*; and *Samuel Suresh*.
4. **PRACTICE:** Whatever your experience with digital notetaking, it is important that you

practice with the various tools, especially while displayed on a projector, to get used to the feeling of communicating with your class in this way. While a whiteboard marker may be easy to reach and comfortable to use, I promise you the benefits of digital communication will become apparent with time and practice.

5. **TROUBLESHOOT:** Most of the challenges of digital notetaking come from navigating the canvas, switching between tools, and finding the file you want to display. All these challenges will get erased the more you use the app, so don't give up!

Keys-to-Success for **Tonal Energy Tuner** as part of your Daily Drill

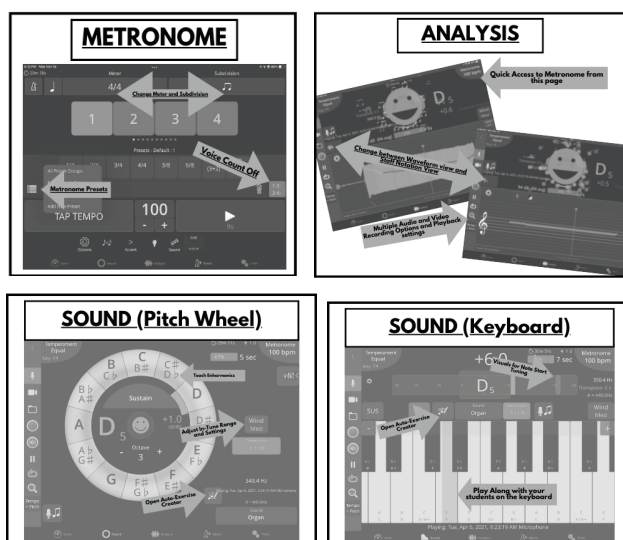


I think it would be safe to assume TE Tuner is one of the most widely used apps in the band world, especially here in Texas. But how many directors have truly plumbed its depth and explored all the features the app contains? Far from just a tuner and metronome, it is a powerful evaluation tool that can (*as one of my colleagues recently put it*) replace a thousand words about tuning with a big

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green smiley face. Many of TE Tuner's best features are found when individual students use it during their practice time, but how can we make use of this app in a full-band rehearsal?

1. **EQUIPMENT:** There are three screens within the TE Tuner that I use every day in rehearsal:



- **The Metronome page** (advanced mode: so students can see the number of beats in a measure). *Features worth exploring include: Preset Groups* (create a click track for any song, with every tempo alteration included); **Voice Count-In** (multiple settings to explore here, good for saving your voice); **Meter and Subdivision** (good for teaching time signatures, training kids to subdivide every conceivable rhythmic alteration, or for articulation practice at various tempos.)
- **The Analysis page** (always-on live recording that can be paused and replayed with a quick double tap). Features worth exploring include: **Waveform/Pitch view** (While playing Remington exercises or F-around-the-room, can help kids visualize how blocky and connected their sounds are in comparison to an example. Good for checking note lengths going into rests as well as pitch center consistency); **Note Staff view** (Check range accuracy and ability to hit the correct octave or partial,

especially good for Flutes, Brass players, or Saxophones working on overtones; connect note names with the vertical position on the staff - double check your transposition settings if things look wrong); **Recording and Playback** - swipe right from the upper left side of the screen to open the recording option - record audio or video! (Pinch/zoom the waveform of a recorded file, loop parts of it for a play-along track and import or export recordings for analysis.)

- and **The Sound page** - alternating between the Pitch Wheel visual and the Keyboard visual. Features worth exploring include: **Pitch Wheel visual** (Teach enharmonic notes and chromatic scale. Good visual for checking individual tuning. Smiley face surprises during individual endurance tests are the best!); **Keyboard visual** (Can work similarly to a Harmony Director. Easier to play drones with the students here than on the wheel. Different visuals for intonation evaluation which might be more effective for some situations or students. Great for comparing note-start tuning to the body-of-note tuning); **Auto Exercise Creator** - Staff & Pencil icon (Create play-along scale, interval, and lip slur exercises in any key or rhythm pattern. Adjust voice count-off and loop settings to keep the kids playing. Save any exercise as part of a collection.)
2. **'FINGERING CHARTS':** The TE Tuner User Guide will help you learn most of the features and the [TonalEnergy.com](https://tonalenergy.com) website has even more video walkthroughs that can lead you to mastery.
 3. **TRAIN:** Attend a clinic on Tonal Energy. Talk to the people in the booth at the TBA or TMEA conventions. They are happy to help you get caught up with using the app to its fullest. Until a convention comes around, use Youtube and the TE website. Find a director

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in your district who has been using it with their students and shadow them for a day. The experts are out there. Ask for help!

4. **PRACTICE:** Sometimes the best way to learn to swim is to just jump in the pool, so play around with the app and see what it can do! Record yourself playing an exercise and turn it into a play-along track for your kids, complete with drum loop sounds for the metronome and drones for an accurate pitch center. Be curious as you practice. Every button on the screen is there for a reason. Tap, Hold, Swipe, or Double tap to see what changes! You might find your new favorite feature this way.
5. **TROUBLESHOOT:** Use the app with your kids and let them help you troubleshoot problems. Sometimes, problems only crop up when the app gets used in a big class. Get feedback from your students on how the app works for them when they practice and what problems they have. The great thing about the people at Tonal Energy is they are very responsive to feedback and are introducing new features all the time!

Keys-to-Success for **Rhythm Sight-Reading Trainer (ReadRhythm)**

There are many rhythm apps that can each do a few things well but, in my experience, none are as comprehensive or feature-rich as this one.



1. **EQUIPMENT:** This app will allow you to display various rhythm exercises to your students in 2, 3, or 4-measure bits, with multiple exercise options and extra challenges built-in. In the Random Exercises menu, you can choose between 74 different levels, each with hundreds of variations (in various time signatures), allowing you to cycle between sets of measures your students can count, clap, or tap out on the screen in either practice mode (play button in center of screen) or performance mode (circle button at bottom of metronome). The practice mode is great for whole class practice time, getting multiple reps on counting, clapping, or playing along with the rhythm on screen, while the performance mode is an amazing evaluation tool that will score individual taps on the screen by their distance to the center of the beat. This will challenge your students to more deeply understand pulse and rhythm and give them opportunities for learning and growth. Any exercise can be saved as a favorite and customized to be as simple or complex as you like, with the added ability to add ties, dotted rhythms, and rests easily.
2. **'FINGERING CHARTS':** The first thing to master when using this app is navigating through the layout of the main screen. The "i" in the bottom right will open the settings menu, where you can choose between random exercises, fixed exercises, favorites, and other options like display settings, extra challenges, and settings for the tapping or clapping response. You can customize exercises by double-tapping the blank part of the screen just above the play button or by tapping the top left of the screen and choosing "Modify Exercise."
3. **TRAIN:** This app doesn't seem as well-known as others so finding teachers will be a bit of a challenge. I do recommend an excellent YouTube tutorial video made

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a few years ago by [Suzan Stroud](#). Search YouTube for “*Why I like Rhythm Sight Reading Trainer and How To Use It.*”

4. **PRACTICE:** This is another app that the more you use it with your kids, the more you will want to use it. Try making your own sets of custom exercises and saving them as favorites for later. Go through the Fixed exercises yourself and try to get a high score on the performance mode. The app will keep track of your score across each of the fixed exercises with a fun surprise reward when you reach new milestones!
5. **TROUBLESHOOT:** Familiarizing yourself with the layout and limitations of the app will take time. Be patient and know that the more you use it the better things will become.

Final Thoughts

There are many more apps that could make a wonderful addition to your rehearsal routine, including: **Tenuto** and **Theory** (both by Musictheory.net - for Note Name testing and concept review); **Fingerings** (reference app with standard, alternate, and trill fingerings for every instrument); **ThetaMusic Trainer** (Ear training app that also tests kids on theory, rhythms, and other skills with a karate-belt style reward system); **Musiclock** (provides play along tracks in any key, tempo, or style - good for scale practice), as well as notation apps (**Noteflight**, **Muscore**, **Dorico**, **NotateMe**, **Notion**, and others). If you want to do more research on apps for Music Educators, I would highly recommend you check out this list put together by Robby Burns: <http://www.robbymburns.com/my-favorite-technology>

Whatever technology you choose to use with your class, remember that it will take work, planning, and time to fully integrate it into the flow of rehearsal. Be patient and look for the positive ways these *tools of today* can make a difference in your teaching, help visual or kinesthetic learners

better understand a concept, and give you new ways to ensure that everyone is a successful and valued part of your band program.

James Hargreaves has served as Associate Band Director at Smithson Valley Middle School in Spring Branch, TX, part of the Comal ISD, in the hill country north of San Antonio, since 2007. Through experimentation, patience, and a lot of trial and error, he taught himself to use a variety of tech tools that have helped him keep up with a growing band program that recently had nearly 380 students in grades 6-8 with only two directors.

You can follow him on his website, (AutoMagic Band Director) for more about Technology, Automation, and Band Directing at: www.AMBandDirector.com

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