

Directing Band *WITH* Technology

OR: How Spreadsheet Magic Helped My Organizational Skills!

James Hargreaves

(This is the third 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.)

Becoming Organized

In the last article, I wrote the following:

“Want Less Stress in your day? Be More Organized! Want your school staff to be happier every time they see you? Be More Organized! Want to NOT feel like every deadline is happening RIGHT NOW? Be More Organized!”

As Band Directors, we understand the importance of organization. How else could one person get a group of 60 or more teenagers, making sounds on 14 different types of instruments, to work together to produce a musical work of art people would want to hear? How else could that same person manage an entire band program—from communications and record keeping to supplies and scheduling—without tearing out all their hair?

Thinking about organization and actually *becoming* organized are two very different things though. Everyone struggles in this area in one way or another and it is helpful to remember that there are many resources out there today that can help us. As always, technology can be the great equalizer, giving those of us less gifted with organizational skills the tools to succeed. All we have to do is learn to use those tools effectively.

Last time, we looked at how optimizing our hardware could help us streamline our daily technology use and start on the path to organization. This time, we will look at how record-keeping software (and what I call

Spreadsheet Magic) can take you the rest of the way.

In my opinion, no other tech tool is more key to helping you **Become Organized**.

Keys-to-Success RECAP

As before, we will break down all our technology tools using the “**Keys-to-Success**” approach I 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. This is where I am slowly compiling all the resources I have used, the lessons I have learned with technology, and some YouTube tutorial videos in hopes that they might help directors everywhere learn from my successes and failures.)

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.

Keys-to-Success FOR RECORD-KEEPING (aka: Spreadsheet Magic)

I look at all spreadsheet software (Google Sheets, Excel, Numbers) as a gateway to the land of true organization, helping those of us less gifted in that area to more easily visualize our tasks and plan out the steps to complete them. Or maybe a better analogy is to think of spreadsheets as an open box of Legos with which you can build *anything*, as long as you know how the Legos fit together.

How often have you found yourself needing to print off a list of kids going on a field trip or get an updated count of copies needed per instrument? Have you hated having to organize

Directing Band *WITH* Technology

shirt orders by size and class period, or stressed over typing up a list of student names (all spelled correctly) for a concert program? If you learn to build and manipulate a spreadsheet in the right way, most of these administrative tasks will become automatic! No matter your current comfort level with this technology, the reality is all of us can benefit from advancing our skills with spreadsheets.

(Personally, I prefer using Google Sheets as my records-management software of choice. It is similar to Excel in many ways and is an easy program to pick up quickly. Most of the concepts discussed below will be centered around Google Sheets but could work just as well in Excel.)

1. EQUIPMENT: So, what can spreadsheets do? What makes them unique?

First, they are not word processors. While some of the formatting and alignment tools look similar to those in Google Docs or Microsoft Word (and you could indeed write a letter or make an invoice in Excel in much the same way as in Word), spreadsheets are built for so much more!

The best place to start is in simply beginning to keep records: Student list, Finances, Instrument Inventory, Records of Songs Played, and even To-Do lists. Try sorting and arranging those records in a variety of ways to gain confidence in manipulating your lists. Experiment with formatting to see what looks good. Once you are comfortable with the software, then start using formulas so you can begin unlocking the true power of the spreadsheet!

With time, training, and creative problem solving, I found ways to build all sorts of things with spreadsheets that helped me accomplish, with just a few clicks, a variety of specific tasks:

- Connecting MY Google Sheets STUDENT LIST to Skyward (our district's gradebook software), allowing me to have an always-updated count of students enrolled in each class, sorted by instrument;
- Getting a list of updated parent email addresses filtered by group, grade level, or instrument;
- Connecting my student list to my inventory records, allowing me to easily assign and return school

instruments, make note of repair needs, and flag items for pickup by the local music store;

- Making a percussion packing list for concerts and contests;
- Keeping a record of songs played by each group and compare it to the list of songs in our music library, linking those songs to the audio files on the publisher's website, and ensuring the list stays updated against the PML;
- Connecting my student list to our financial records, allowing me to easily make deposits, typing the important payment information only once in my records and using formulas and a little coding to automatically copy the information into the proper forms for our bookkeeper;
- Creating lists formatted for bus seating assignments, printable skill pass-off charts, book and t-shirt orders, payments owed, printable Avery mailing labels for use on lockers, folders, and instruments, and even seat assignment labels (those half sheets of paper with the student's name on it to fold over a music stand); and
- All of this can be accomplished with something that started out as just an empty spreadsheet! (Open box of Legos indeed! What will you build, I wonder?)

With Google Sheets, all my files are saved online automatically which makes them easy to work on from anywhere, on any device, and are easily shareable with other teachers and staff.

It took a lot of experimentation and some online courses to fully learn how to use it, but once I did, it changed my world! I even learned to use a little bit of Google Apps Script in my spreadsheets. (Once you learn how to write code in Apps Script you will really start to feel like a wizard!)

2. "FINGERING CHARTS": Okay, so HOW do you do all this? The magic is in how Google Sheets (and each program within the Google Suite) does a great job of providing detailed and guided help documentation. If you start typing a formula, a helper window pops up to guide you through completing the formula correctly and helping you avoid errors. Use these tools and the links they contain to learn ALL that this software can do!

Directing Band *WITH* Technology

Before you dive into formulas though, I recommend first exploring the menus and toolbars located at the top of the Google Sheets window, notably:

- Format - Make your data easier to read with alternating colors, border lines, and “Conditional formatting”
- View - Freeze rows/columns, Group rows/columns, and customize the way your sheet looks.
- Data - Sort, Filter, Named Ranges, and Data Validation: All are worth checking out!

Then, I would start with the most useful formula in the band director world: “COUNTIF”. COUNTIF is a formula that looks at a range of data and counts how many times a specified word, phrase, or number is listed. You can use this formula for:

- Counting the number of copies you need by part for each band class (see example below),

changes (new kids move in, instruments are added to the inventory, forms are entered, etc.), the formulas will account for that change, always giving you the most up to date information!

3. TRAIN: Whatever your level of experience with spreadsheets, find a trainer to help take you to the next level. Almost everything I know I learned from these two sources, both of whom have several free course options for students of any skill level:

- Ben L. Collins: www.benlcollins.com
- Learn Google Spreadsheets - YouTube Channel: www.youtube.com/LearnGoogleSpreadsheets

4. PRACTICE: Start slow with simple projects that begin where you are in your data recording journey. Build a to-do list and keep track of your tasks over time.

Make your student list easier to read with formatting. Make a page that looks at your student list and spits out a count of instruments for each class period using the “=COUNTIF” formula explained above, or its variant: “=COUNTIFS”. I have example sheets on my website you are welcome to use as reference for ideas: (www.AMBanddirector.com) but be careful to not take on too many tasks too soon. You can certainly build a great many wondrous things with

**A Band Director's best friend:
the “COUNT IF” Formula**

Step 1: select an empty cell, then type an **equals sign** followed by **COUNTIF()**

Step 2: Fill out the required parameters, selecting the **range** of cells you are checking and the **criterion** you want to look for.

Step 3: Use a **dynamic** reference for the criterion instead of a static one, using data in another cell as the reference (in this case, cell D2).

Step 4: Add **dollar signs** to your range reference to “LOCK” its location, making it easy to copy and paste the formula.

Step 5: Copy the formula as needed and the locked ranges will stay locked while the others will change reference points as necessary.

Step 6: Enjoy your newly automated list-counter! Use it everywhere to automate tasks!

- Seeing who has turned in their permission slip or health form,
- How many kids have a school instrument checked out,
- Number of shirts ordered for each size,
- And dozens of other uses.

The best part about most formulas in Google Sheets is that they can be dynamic, meaning that as your data

this “open box of Legos”, but until you fully master it, you might build your Lego tower too high only to see it fall to pieces.

5. TROUBLESHOOT: The best way to troubleshoot issues with spreadsheets is to back up from the error and trace the origin of the problem. Formulas require specific

Directing Band *WITH* Technology

syntax and keystrokes to work and a misplaced comma or an extra semicolon can mean the difference between an error and success. Check your formulas and don't give up. You CAN do this. Trust me. When you finally fix the errors and successfully accomplish what you were trying to do, your confidence will go through the roof, and you'll be itching for the next cool thing to try!

BONUS: One AWESOME TEACHER ORGANIZATION app that takes advantage of spreadsheet skills...

In the final part of this article series, we will focus on **Specific Music Apps** and how they can help you plan and deliver engaging lessons more effectively, assess student mastery of objectives, and ultimately, transform your band program for the better! I want to let you know now about one specific **Organizational App** that will do wonders for your classroom management and lesson preparation and is a perfect segway from talking about Spreadsheets: **iDoceo**, an iPad, Mac, and iPhone app that is indispensable in every band classroom.

- iDoceo works as a mobile gradebook, attendance taker, lesson planner, note taking device, and random name selector that works great for having kids pass-off music in a more exciting alternative to "down-the-row" pass-offs.

- I use it to help me connect names and faces (we take each kid's picture in the app on day one), keep track of individual skills throughout the year, and make notes on each class's progress for the day's goals.

- In the gradebook part of the app, it even has Custom Rubrics you can build yourself that really help the kids see WHY they got a 92 or an 84 for their playing test.

- **If you want a more organized classroom, I HIGHLY recommend checking out iDoceo. www.idoceo.net**

THE JOURNEY IS THE DESTINATION

As you strive to learn new skills and put new techniques into practice, please keep these three points in mind:

1. Picture what it is like for your students when they learn something for the first time. It's a big deal when a beginner is finally able to perform in their first concert,

even if it is only *Hot Cross Buns*, *Aunt Rhody*, and *Jingle Bells*. Given enough time and dedicated practice, they will eventually get the chance to perform Holst, Hindemith, and Grainger, but only when they are ready. ***So it will be with you as you master new technology.***

2. Like the journey of instrumental mastery, this journey toward organizational and technological mastery is a voyage toward an always-moving horizon. We must never tire of learning and growing but regularly evaluate our view of what is possible, seeking to improve our daily habits and find the best solutions to new problems. For as technology continues to evolve, as it always will, we must take the necessary steps to evolve with it.

3. Most importantly, remember to take small, measured steps when adopting new systems of organization. It is easy to get discouraged and frustrated when the things you are trying to do don't work as expected and you don't know how to fix it. Gain mastery in the small changes first, then move on to bigger ones when you are ready.

It has taken me years to develop the systems I use in my band program, and I am still discovering areas where the technological process can be streamlined even further. Again, just as in music, the journey IS the destination. As you master new skills with technology and develop new habits, not only will you start to see time-savings in your daily routine, but you will gain renewed self-confidence that will reflect out to all those with whom you interact. Hopefully, if more directors discover ways to streamline their workflow and lower their administrative stress, then maybe more of our fellow directors will get to experience the true magic of teaching music!

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.