

The Best Of Gary Gray Volume 1



All of Gary Gray's courses are available as a part of [HTLYM Premium](#).

Or, Purchase any of Gary's courses individually:

[Music Production Fundamentals](#)

[Mysteries Of Mastering Solved](#)

[How To Get A Killer Vocal Sound](#)

[How To Produce Music That Will Get Licensed](#)

Three music production techniques you can use right now to increase your chances for success

I recently moved closer to Hollywood (I'm now an hour south) and so built a new studio. Three months after I moved, I had no other choice but to build another studio and hire two people to keep up with the work. One area that has really taken off in a big way is teaching producer/engineers world-wide how to properly mix and master for Music Licensing.

In fact, I have a large case-study of music licensing successes being delivered to me in January from students who have signed up for HowToLicenseYourMusic.com and who have taken the music production courses we offer – laying out the number of licensing deals landed and money made.

One of the reasons teaching has taken off so much, is that I've had the fortune this year to work directly with Music Publishers and Music Supervisors in the studio. This was the direct result of face-to-face networking (including some very effective networking with Aaron Davison in Los Angeles & Hollywood while he and Michael James were here to record Aaron's upcoming EP at my studio).

Aaron's first single I produced was picked up for an exclusive licensing deal with a major publisher in L.A. – within 24 hours of release.

Almost every person I speak to who submits music for licensing has a common frustration – not only do they rarely find out exactly why a track gets rejected when it does (so they can correct what they are doing and improve), but they sometimes don't even know why their tracks get accepted! (So they can strengthen their successful actions!). Working with Music Publishers and Music Supervisors in the studio has now given me a constant "finger on the pulse" of why tracks get accepted, and why they get rejected – in the music licensing world.

As a result, I'm able to give you an "insider's look" at why tracks are accepted or rejected for licensing. With this new perspective in mind, I'm launching a new free blog/video series called "7 Minutes To Better Sounding Tracks." This series concentrates on how to mix and master music in order to increase your chances for lucrative licensing deals.

This blog can be read on its own, or better yet, acts as a guide to the video. You can watch the video below:

<https://youtu.be/pHlkJZVnAig>

Let's get right to it:

1. Using The Tone Generator To Create Commercial Sounding Mixes

Most recording programs (D.A.W.'s) come with a Tone Generator. For those that don't, legitimate free plug-ins are available, such as those on the KVR Audio website.



A Tone Generator is just that – it's a plug-in that generates tones of specific frequencies and volumes, and sometimes this includes white noise and pink noise. A Tone Generator can be used musically. One way to use a Tone Generator musically is with lower frequencies -- to increase the quality of the low end of a recording.

I watch students (and this happened to me as well) progress in their career and move up to higher levels as they pass certain milestones in their mixing and mastering careers. One important milestone is:

Becoming proficient and confident in matching commercial recording quality standards - in the low end.

It's all about that bass.

Beginning and intermediate mixers tend to conquer the mids and highs relatively quickly. It's the low end that can be a real challenge.

Adding a Tone Generator "Bass" track to your mix can be a big step towards conquering that challenge.

2. Carefully Adjusting The Volume & Energy Level of Each Bass Note

The low end frequencies cause a speaker to move back and forth a lot more than higher frequencies. You've seen videos showing how bass speakers can move physical objects like sand and particles and create some amazing geometric patterns in doing so. Depending on the source of the sound, certain bass notes can "sound louder" and "feel more powerful" than other notes using the same synth patches or acoustic instrument sources. You can even "see" this phenomenon in those same videos. What you are seeing visually is the concept of "sound pressure" in action. It's what causes you to literally feel bass notes on your body. The more distance the speaker moves back and forth, the more sound pressure.

Even though designers and manufacturers of instruments, synths and speakers have done all they can to even out the volume, energy and sound pressure of all notes, one cannot assume while mixing, that this will be the case. This is because the way low frequencies react with

- Other higher frequencies in a track,
- Speakers,
- The listening environment, and most importantly,
- The mind. (Psychoacoustics)

Certain phenomena occur in the physical universe and in the mind of the listener when it comes to low frequencies that can make your tracks sound inconsistent, and anything but competitive with commercial tracks – unless understood and controlled with precision by the person mixing.

There is no "one size fits all" or "magic button" approach to mixing – especially with the low end.

Basically, you want to be able to put a steering wheel on that "low rider."

Each song or instrumental piece you compose, arrange, record, edit, mix and master – is like a snowflake. No two are alike. Nor is any single recorded instrumental track or vocal track fully predictable in terms of how it will react with other tracks and/or other effects within this unique relationship. And so mixing requires experimentation, patience and some knowledge of what to listen for. The more knowledge, the less time it takes.

But, again, there is no shortcut.

The higher the rewards (pay) for the licensing deal, the more meticulous the mixing needs to be executed (with rare exceptions).

Music for a reality television program requires less meticulous mixing than film score sound track music or music for a trailer.

When it comes to your work ethic, part of that meticulous work should be done with your eyes closed, sitting or standing away from your computer and mouse. Hit play, and then step back or sit back and close your eyes and listen – and feel (literally) the low frequencies in your track. Then do the same with similar genre commercial tracks, and compare the two. One great tool you can use to do this instantaneously is the plug-in Magic A/B, where you can load up to nine commercial tracks with which to A/B. My mixing reached a much higher level of quality by using that one tool.

Sometimes, I'll A/B the low end with just my subwoofer turned on. (By the way, it's best to have a subwoofer, or at least good studio monitors that can generate decent bass frequencies). It's quite a challenge to conquer the low end with headphones, though it's not impossible. Just ask Skrillex. (Hint: you'll need to use really good headphones). It is pretty much impossible to conquer the low end through laptop speakers or smartphone. Those speakers just don't move back and forth enough to allow you to hear all the lower frequencies. You should definitely check your mixes on ALL systems, but conquering the bass fully requires a system that efficiently demonstrates the sound pressure levels actually occurring in the lowest end of the sonic spectrum. (From 20 Hertz [cycles per second] and up)

The point is, if you relax and take the time to listen (preferably with your eyes closed) over and over while A/B'ing, the quality of your mixing will increase greatly. Being impatient or overly anxious about finishing your mix (I know it's sometimes hard not to move on to the next thing) can keep you from reaching your licensing goals. The good news is, the more you do it, the faster the process gets – but – remember there is no substitute for attention to detail.

It's amazing to think how simple it is -- that the one thing you need to do more of in order to reach the highest level standards of mixing in our industry requires no education, no training and no tutorials – yet most people don't do enough of it:

Listening. Only listening. Hands on nothing. Eyes on nothing. Just listening. And comparing. By Listening.

In the video, you can watch as I use a tone generator in an actual mixing session to set up a sort of "shadow track" in the low end. The root tones of chord changes, and/or the exact notes played by the regular bass guitar or bass synth(s) can be automated in the tone generator by inputting the frequencies of the desired notes. You can search online for charts showing frequencies (in Hertz) and corresponding notes. Here is one such chart:

| Note | Hz | Note | Hz | Note | Hz | Note | Hz | Note | Hz | Note | Hz | Note | Hz |
|------|------|------|-------|------|-------|------|-------|------|-------|------|--------|------|--------|
| C1 | 32.7 | C2 | 65.4 | C3 | 130.8 | C4 | 261.6 | C5 | 523.3 | C6 | 1046.5 | C7 | 2093.0 |
| C#1 | 34.6 | C#2 | 69.3 | C#3 | 138.6 | C#4 | 277.2 | C#5 | 554.4 | C#6 | 1108.7 | C#7 | 2217.5 |
| D1 | 36.7 | D2 | 73.4 | D3 | 146.8 | D4 | 293.7 | D5 | 587.3 | D6 | 1174.7 | D7 | 2349.3 |
| D#1 | 38.9 | D#2 | 77.8 | D#3 | 155.6 | D#4 | 311.1 | D#5 | 622.3 | D#6 | 1244.5 | D#7 | 2489.0 |
| E1 | 41.2 | E2 | 82.4 | E3 | 164.8 | E4 | 329.6 | E5 | 659.3 | E6 | 1318.5 | E7 | 2637.0 |
| F1 | 43.7 | F2 | 87.3 | F3 | 174.6 | F4 | 349.2 | F5 | 698.5 | F6 | 1396.9 | F7 | 2793.8 |
| F#1 | 46.2 | F#2 | 92.5 | F#3 | 185.0 | F#4 | 370.0 | F#5 | 740.0 | F#6 | 1480.0 | F#7 | 2960.0 |
| G1 | 49.0 | G2 | 98.0 | G3 | 196.0 | G4 | 392.0 | G5 | 784.0 | G6 | 1568.0 | G7 | 3136.0 |
| G#1 | 51.9 | G#2 | 103.8 | G#3 | 207.7 | G#4 | 415.3 | G#5 | 830.6 | G#6 | 1661.2 | G#7 | 3322.4 |
| A1 | 55.0 | A2 | 110.0 | A3 | 220.0 | A4 | 440.0 | A5 | 880.0 | A6 | 1760.0 | A7 | 3520.0 |
| A#1 | 58.3 | A#2 | 116.5 | A#3 | 233.1 | A#4 | 466.2 | A#5 | 932.3 | A#6 | 1864.7 | A#7 | 3729.3 |
| B1 | 61.7 | B2 | 123.5 | B3 | 246.9 | B4 | 493.9 | B5 | 987.8 | B6 | 1975.5 | B7 | 3951.1 |

What you want to do is to fill out the lowest frequencies in a pleasing and consistent way. You do this by first adding the frequencies with the Tone Generator, then meticulously adjusting the volume and energy of each note, (this could require automating more than just volume – things like EQ, Soft Clippers, Maximizers, etc) and finally carefully mixing in the other bass elements of your song or composition. When you do this correctly, the result is a great feeling of confidence that doesn't go away, and hearing people say "wow, I wish I could get my low end to sound like that – it sounds like a commercial release!"

3. "Performing" The Mix With Meticulous Passion And Musicality

I use the phrase "meticulous passion" – which may seem like a contradiction -- because every famous person I have ever observed, whether they were involved in sports, business, education, music, cooking, etc. – had these two things in common. They were meticulous. And they were passionate. At first I thought these two things were separate actions – first they planned and prepared meticulously. And then they executed passionately. But taking a closer look, I saw that they carried out these two traits simultaneously.

Before digital recording, whenever a band recorded in a studio equipped with a mixing console that was not automated, the mixing process often required the entire band to "perform the mix." It was "all hands on deck" literally. And if you were in the room watching the motions those band members went through while hitting mute buttons, sliding faders up and down, and calling out cues, you would swear you were at a concert! There was that much passion going on. And, yes, it was all done with major attention to detail (meticulous execution).



I used to think my mixes were fully done before I learned about "performing the mix" – and then I realized there was a lot more I could get out of the entire mix – and not more "sonic perfection" -- No. We're talking about emotional content, dynamics, soul, passion, heart, spirit, whatever you want to call it – it's the raw stuff that artists are made of – the blood, sweat and tears of art itself. If you go back through your "finished" mix, and simply "perform" each instrumental track (at least the most important tracks in the mix) and the vocals, by automating aspects of each

track such as volume, reverbs, delays, eq's & other effects, the results can be night and day between the "before" mix and the "after" mix.

NOTE: This isn't something that should be overdone, because small adjustments can make a huge difference!

I don't think this needs more explaining. I think you got this one clearly. Try it out and let me know what kind of results you get!

Some of the greatest mixing engineers and producers in our industry have all shared the above "icing on the cake" procedural tip with me. In fact, when I spoke with Steve Lillywhite (Grammy Winning U2 Producer) in Hollywood two years ago, he told me that basically, this is pretty much ALL he does during a mixing session. He doesn't dive deep into other aspects of the mix. He makes sure the recording is solid, and then he meticulously and passionately "performs" the mix.

And know this: it's not because musicians don't perform passionately or that recordings aren't done well. It's because the media of speakers and electronic sound reproduction require attention to detail and intense dynamic human interaction to create an emotionally moving and satisfying experience for the listener, one equal to an actual live performance. This holds true in all genres. And that is your goal.

It's not how many notes you play or sing. It's how much passion and heart you bring. Write to me if you have any questions and with any successes you achieve from applying the tips above!

Music Production: The Art & Science Of A/Bing

Today's post is a guest post from How To License Your Music dot com's resident producer, Gary Gray. Take it away Gary...

It feels good to come up for air after a marathon of studio work, networking, and preparation for the release of the upcoming launch of [HTLYM Premium and The 365 Day Music Licensing Challenge](#). Aaron and I have been working hard behind the scenes, not only on his new album, but also on a whole new level of education and hands-on mentoring for those who seek a balance of business acumen and music production knowledge in the field of Music Licensing.

On the networking side of the business, I've been doing more and more face-to-face meetings in LA, which has always paid off in stronger relationships, more work and more licensing deals closed.

Last week I attended and voted at the Los Angeles Live Score Film Festival. I have so many students who are now studying Film Score Production and Theory with me, that I made it a point to expand my reach even deeper into the LA music and film industries. I'll be updating you more on that front in future blogs.



On the licensing side of the business, I've been finishing off composing, mixing and mastering tracks for Season 3 of the A&E Emmy Award-Winning TV Series "Born This Way."

And, last, but certainly not least, on the production side of the business, I've been not only getting my own tracks licensed, but I'm seeing more and more students getting their music licensed.

Being an avid researcher, I discovered two main common denominators among those people who are getting their tracks licensed on a consistent basis:

1. They smartly utilize the resources included in the 180 Day Music Licensing Challenge.
2. They consistently produce quality tracks by learning the Art & Science of A/B'ing.

The Art & Science of A/B'ing

During a recent recording session, I spoke with the production team of the Grammy Award-Winning Artist Chance The Rapper. I'm continually struck by the fact that people who consistently create great recordings tend to share the same story. It's a story of how they stripped away complexities and narrowed down their craft and created success with basic important priorities. Priorities such as: working through adversity on a daily basis. Never giving up. Always learning more about their craft. Building and maintaining strong business relationships.

And in the case of music production, they never "fly blind" (arranging, editing, mixing, and mastering without comparing their work to similar commercially released reference tracks – called A/B'ing [comparing "A" to "B."])

This point is so important, I've seen brand new students with no licensing experience, license their music by concentrating and focusing on this one technique alone. When you mentor students for 30 years, you start to see patterns. Well, this one is unmistakable.

The Art of A/B'ing

The first step of A/B'ing seems like the easiest step. It's not.

The first step of A/B'ing effectively is to choose appropriate tracks to use for reference tracks. That's plural. Not just one. I find that three tracks is a good number.

Before we get into further steps, you'll see (and you may already know this if you've worked with me before or taken any of my courses) that I approach teaching and mentoring with the philosophy of a) removing unworkable approaches to production and b) building confidence. If anything is unworkable (and there are a number of tutorials and approaches out there which are not workable) the result is lowered confidence for the end-user. The one thing that makes me happiest is seeing students license their music consistently.

That being said, an incredible confidence builder for you as a producer/engineer, is this deceptively simple approach:

1. Choose three reference tracks that you really like the production of, similar to your project, in arrangement, tempo, style, feel and mood. Easy, right? No. It takes patience, time, and research to do this effectively. And for many, this step is skipped altogether. I can predict right away, in the case where this step is skipped, that the quality of the project will not be as good as it could have been if this step were carried out. Make sure the reference

tracks you import into your project are high quality files. I purchase my tracks from iTunes (AAC files) and convert them in iTunes to wav files before importing them into my project.

2. This second step is part of the secret sauce that I've discovered. It produces amazing results and a huge confidence boost for anyone who does it. I've found that anything you do to increase the confidence of a producer/engineer, will absolutely increase the ability of that person to objectively listen to their own mixes accurately, and help them make choices in their mix without fear or anxiety or "second guessing." Here's the step: The first thing you are going to A/B, is not your track to these commercial recordings. The first thing you are going to A/B is these commercial recordings to each other. Once you actually do this, you will be blown away. You will hear things in these recordings you never heard before - recordings that you thought were "perfect," that you thought were created by "untouchable gods that you will never become." I encourage you to take notes while carrying out this step. Again, you will be blown away by some fascinating phenomenon that occurs here. You may find that one track has too much bass for your taste, though the rest of the mix you love. You may find that one track is overall a lot brighter than the other two. You may find that one track sounds thinner in the mid-range than the other two, etc. Things you never heard before. All of these things you've never heard before will help you arrive at one important conclusion: Mixing and Mastering is not just a Science. It's an Art. These commercially released productions are produced by humans, just like you, who have strengths, weaknesses, preferences, and limitations. I've watched students go through this process many times. Every time, a similar thing comes out of their mouth. "Wow, I heard things in these tracks I've never noticed before." And then the most important statement follows: "I can do this. I know exactly what I want my track to sound like now."

Common definition of A/B'ing: Most people think A/B'ing is something you do at the end of a project. You emotionally prepare yourself to hear how bad your track sounds compared to the "perfect" commercial recordings created by "gods that you'll never become." It's a confidence killer!

When you learn the secrets of A/B'ing and how to do it effectively, you and your mixes will never be the same!

In later blogs and a video this coming week, I will fill you in on more of the science and details of how to A/B while mixing and mastering. But if you miss the importance of these first two steps, the quality of your productions will suffer to that degree. In fact, if you do the first two steps above on your next project, watch the quality of your next mix improve markedly. (For an extensive education on A/B'ing, I suggest the course "[Music Production FundaMENTALs](#)" – which is one of three bonus courses on music production in the [HTLYM Member Site](#)).

Three Lies That Could Be Ruining Your Recordings

Today's blog is written by HowToLicenseYourMusic.com's resident producer/engineer Gary Gray from Los Angeles. Gary's recent successes include 14 of his last 14 submissions being accepted by publishers and supervisors, including an exclusive paid publishing deal with Megatrax, one of the largest and most respected licensing corporations in the U.S. 12 of the 14 tracks have resulted in checks-in-hand already.

In addition, the Music Supervisor for A&E used Gary's latest submission as an example of music production standards for other composers working for A&E.

Gary and I have also been busy on two projects recently, one, a revolutionary new course on music production which will be released on the 21st of July called Music Production FundaMENTALs, and the other, a collaboration in the studio on several songs which has resulted in our first track already being accepted by the Music Supervisor for A&E. Stay tuned on that front. More good news on the way.

[Check out the trailer for our new course here:](https://youtu.be/PTMObuFgLvA)

<https://youtu.be/PTMObuFgLvA>

Gary took time out of his busy schedule to write the following blog to help anyone starting out with music production -- or anyone wanting to increase their chances for landing licensing deals – by laying out simple, effective actions you can take right now to make your mixes sound better.

Over to you Gary. . .

Thanks Aaron! There are three misleading “facts” (lies) that I run into over and over while teaching, while collaborating with other composers and while shopping music for licensing deals. All three lies deal with music production. These three topics, along with 6 others, are taken up in great detail in the upcoming course Music Production FundaMENTALs, which will be released on the 21st of July.

It's an 8-part course, with 10 videos, lots of photos, screenshots, pdf's, and sample recordings – including mixes, masters and stems for you to mix per the instructions on the course, and reference mixes, masters and stem files of tracks that are license-ready – so that you'll never again need to ask “What does ‘radio-ready’ quality mean?” Or “what should I listen for when I'm mixing?” Or “How do I get my tracks to sound like they should sound to get licensed?”

Unacceptable music production is the number one reason tracks get rejected and great music production is the number one reason tracks get accepted, so I've gone over this curriculum with a fine-toothed comb. Where did I get this information? From music supervisors that I collaborate with in my studio.

This course is the result of 8 years of work and 30 years of research. After watching over 400 tutorials myself during the course of my research, and after spending the last year beta-testing the curriculum on my students, I am very excited about the upcoming release. Anyway, more on that later.

(You can find out more about the course by watching the Trailer Video for the course below)

For now, let's get into three areas that can help you improve your mixes right now. This blog will deal with number one, and the next two blogs will cover points two and three.

1. Watching meters and levels and paying close attention to the exact “headroom” on the faders in my mix is vitally important to getting good mixes. I need to maintain -12dB of headroom at all times while mixing, or the quality of my mixes will suffer and the Mastering engineer will get mad because my mix won't sound good. Mixing is a Science.

Wrong.

The Truth: Mixing is an Art. An extremely emotional and passionate art which is facilitated by scientific tools. Art by its very nature is exploratory and its procedures are not always predictable or “cookie cutter.” And one gauges the art of Music not with his or her eyes, but with the ears. Watching meters once in a while to side-check things is ok, but mixing by the eye and by numbers can suck the emotion and passion out of a

track. Especially when someone has convinced you that it IS important to “keep your eyes on the meters.” If you believe that advice, then anytime you take your eyes off the meters, your confidence will go down. Especially if the advice is from someone you consider an “authority.” You’ll make bad choices with your mix. You won’t be able to hear your mix objectively. You’ll go further and further down the rabbit hole of no sweet spot possible and the point of no return long gone. Your confidence will be transferred from you to a meter, when it belongs 100% inside of you – not in objects and procedures.

The best way to mix is with your eyes off the computer screen or closed!

This is one small example of how mixing is a MENTAL sport – how bad advice can cause a mental block to hearing your mix accurately – hence the title of the course: Music Production FundaMENTALS.

Yes, you should know the Science well. Very well. Those are your tools. The better you know your tools, the harder it is to fool you and suck away your confidence with misleading “facts” (lies) and bad advice.

For example: Did you know that all modern DAWs use a special technology on the individual faders in your mix (floating point technology) which allows you to hit the “red” as much as you want on any individual track WITHOUT any audible distortion? The clipping light on individual tracks does not mean audible clipping. Pretty weird, right? Yes, it’s pretty weird. But totally true.

Now, the best way to manage your mix is to have all of your levels averaging roughly half-way up your meters.

But not doing so on your individual tracks won’t necessarily ruin your mix. The one thing you’ve got to listen for (LISTEN – not watch) on individual tracks is this: certain plug-ins, if you hit them too hard with too much volume, or turn up the input volume too high on the plug-in, the plug-in itself might distort. However, when dealing with guitars, certain synths, bass and even vocals, that type of distortion sometimes sounds GREAT in a mix. It’s how many analog recordings in the ‘70s and ‘80’s sounded so good. So, trying to follow advice of paying close attention with your eyes to levels just sabotages the art of mixing. And it’s not even good Science!

The Stereo Buss out is a different animal all together. Red means clipping means audible distortion on that channel. There is no floating point technology on that fader. You can learn more about that by researching the subject, but there's really no need to if you follow these two simple rules.

Following these simple rules will give you excellent sounding mixes that can be mastered to radio-ready quality:

1. When recording, set your input gain so that the average level rides about half way up the meter on that track in your DAW. Make SURE that you hear no audible distortion while recording. And by the way, since there is virtually no noise floor with digital recording, you can even allow the average level to ride below half way. And it lowers the stress level while recording because you never have to worry about anything clipping. When you get to the mixing and mastering steps, that mix is going to sound awesome.
2. When mixing, set your various track volume levels so that the Stereo Buss Out (the Main Stereo Out Channel) rides about half way up the meter on that channel. (Managing your levels is called Gain Staging) If it sounds too soft, simple solution: turn up your speakers. Try to mix with an average level of 85dB – which is not very loud at all. You'll save your ears and the human ear/mind can perceive the best balance in any mix at around 85dB. Although this sounds too simple to be true, here's the bottom line truth about mixing: If it sounds emotionally pleasing and there's nothing distracting about your mix (including distortion from clipping), then it's a good mix. Nothing more scientific than that. How much headroom you have when you give it to the mastering engineer actually means nothing, as long as it sounds good and it isn't clipping. He or she can adjust it from there before the mastering process begins. In the course Music Production FundaMENTALS, you'll learn what "sounds good" really means.

Trying to get your levels as close to red on the stereo buss out without clipping is a stressful way to mix in the digital domain. That was exactly how you had to mix with analog tape because the tape and machines and outboard gear were so noisy, but, without getting too technical, there was a lot of headroom available above clipping in

case anything went into the red back then, so stress levels were low. Now, with digital recording technology, if anything goes into the red on the Stereo Buss Out – chances are it WILL audibly clip (distort) and you don't want that.

If you follow the simple rule of keeping your Stereo Buss Fader riding an average of half way up the meter (notice I'm not worried about any numbers – there's no need to get all exact and precise with this) you'll never be stressed out and therefore you'll be able to hear your mixes more objectively.

High Confidence, Good Organization and Low Stress equals masterpiece mixes.

Again, mixing is a MENTAL sport. Bad advice or incomplete research can cause you to mix with a lot of stress and confusion. When that happens, it's hard to get out of the "amateur sounding mixes" mode. I learned this the hard way. I had to research and experiment my way out of it. I discovered that the best "meter" you can pay attention to while mixing, is when you get chills. Now that's a reliable meter.

Your tools also include music theory (that's right – it's a vital tool for mixing – after all you're mixing MUSIC not just sound). There are two great music theory sites and an app that can help anyone increase the quality of their mixes right now.

NOTE: When you hear someone say that they don't want to "limit" themselves by learning music theory, tell them this: Music theory is a step by step education on what gives people chills and how to create those chills on a consistent basis. Maybe they'll change their mind.

- A. [Mugglinworks.com/chordmaps](http://mugglinworks.com/chordmaps) – A brilliantly simple yet thorough approach to music theory. I've had students become quite advanced with music theory within 6 to 8 months using that site. I use it all the time myself. <http://mugglinworks.com/chordmaps/>
- B. [HookTheory.com/theorytab](http://hooktheory.com/theorytab) – An amazing site that allows you to reverse-engineer thousands of hit songs in many styles, including EDM. There are plenty of free services on that site, and if you can afford it, there are extended services with their paid membership.

<http://www.hooktheory.com/theorytab>

C. The Mugglinworks ChordMapMidi App. Here's a very cool description of the app from their website: "A music teacher enters a classroom and says, "many songs have been written using simple chord progressions. Today we're going to play I-V-vi-IV. A few minutes later, every student in the class is able to explore I-V-vi-IV in all 12 major keys, using a variety of instrumental sounds."