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Teaching Modern Production and Songwriting Techniques: What Makes a Hit Song?

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Abstract

Most casual listeners would regard the job of a professional songwriter or producer as more of an art than a science. Yet some producers and songwriters consistently create songs that make listeners shout, weep, buy, and even illegally download the music they are hearing. These types of writers are typically not available to apprentice hundreds of students so, how do we learn from their craft?

This article attempts to answer several questions about the concept of hit song science (HSS) as related to the instruction of future music producers and songwriters. Hit song science is defined as the task that attempts to predict, prior to its distribution, whether a given song will be a commercial success solely based on its audio characteristics (De Bie, et al. 2011). Questions include:

1. What do modern hit songs have in common, and how are they changing?
2. What techniques can an aspiring producer and songwriter use to effectively reach a commercial audience?
3. What type of song is reaching the top of the charts in this new world of social media, digital distribution, illegal downloading, and radio consolidation?

Keywords: songwriting, hit songs, hit song science, music informatics, music business, music education

Overview

The purpose of this research study is to quantify new, commercially successful methods used in modern music production and songwriting so that they can be applied and disseminated in the classroom setting.

This paper will examine some of the common factors that are shared between successful songs released by Billboard Hot 100 music artists over

an eighteen-month period. Thus, by applying statistical analysis to a number of metrics including tempo, form, pronouns, introduction length, song length, archetypes, subject matter, and repetition of title, we can guide our students to focus their efforts toward a more commercially appealing result.

The results of this research can also be used by working music producers and songwriters to improve or update their craft. Unsigned bands and artists can use the information to mold and choose songs that have a greater chance of commercial success. Additionally, artist managers, A&R, and radio can use the results of this analysis to determine the viability of their artists' existing songs as hits in the current market.

Review of Literature

As long as there has been popular music, there have been authors writing about the anatomy of pop songs and how to "write a hit" for the popular music market. However, hit song science, an application of computers and statistics, is a relatively recent development. Several companies and research labs have created programs to address the subject. Most developments have occurred within the fields of music informatics, music data mining, and computer science.

First Commercial Applications of Hit Song Science

Polyphonic HMI (Human Media Interface), a subsidiary of Grupo AIA, introduced the concept of the hit song science computer program in 2003. The company claimed that machine learning could create a music profile to predict hit songs from its audio features (Elberse 2006).

HMI's program used a process called "spectral de-convolution," which analyzes over 25 characteristics from a dataset of over 3.5 million past commercial hits since the 1950s. This includes beat, chord progression, duration, fullness of sound, harmony, melody, octave, pitch, rhythm, sonic brilliance, and tempo. Based on its characteristics, each song was then mapped onto a multidimensional scatter plot termed the "music universe." Songs with mathematical similarities were positioned very close to one another forming clusters on the chart (Elberse 2006).

HMI found that most songs that had made it to the Singles Top 40 of the Billboard Hot 100 between 1998 and 2003 formed within 50 to 60 common cluster areas. The company could then examine whether or not an unreleased song mapped with these established clusters. Mike Mc-

Cready, the CEO of Polyphonic and now CEO of MusicXray, states, "If a song falls within one of these clusters, we can't necessarily say that it will be a hit. We just know it has the potential. The song has to conform to a couple of other criteria in order to become a hit: it has to sound like a hit, be promoted like a hit, and be marketable. But if a song falls outside of the clusters, we know it will probably not become a hit" (Elberse 2006).

Polyphonic had initially used the technology to develop a music recommendation system. The idea was to develop a device placed in music stores that provided recommendations to shoppers, thereby helping retailers to increase sales. Music Intelligence Solutions was one of the first companies to spawn off from HMI's use of this technology. HMI's software can also be used as a way of recommending new music to audiences by creating personalized radio stations, such as Pandora. Following HMI's lead, other services such as MusicXray, Mixcloud, Uplaya, and Band Metrics have also utilized this technology (Elberse 2006).

McCready further states,

> Hit Song Science is to the music industry what the X-ray machine was to medicine. The first time someone told a doctor he could look inside a patient's body without cutting it open, it probably sounded like science fiction too… in the end, the X-ray machine is a tool that helps the doctor see something that he could not see before, and he can use that information to make better decisions. That is exactly what Hit Song Science does, and that is what matters. I know that we are just a millimeter away from this thing taking off.
>
> Not using the best available data in the music business could also be considered malpractice but since lives are not on the line (just livelihoods and careers) there is no external pressure in our industry to adopt these kinds of best-practices. In fact, there is more industry-recognized glory when you can attribute success to elusive golden ears and gut instinct—much like the mystique surrounding a professional athlete. (McCready 2011)

Score a Hit

In 2011, Dr. Tijl De Bie, project leader and a senior lecturer in artificial intelligence at the University of Bristol in England, led a team that gathered fifty years of hit song data from the Top 40 charts in Britain. Using the data, they created a computer equation that attempts to rank a song's hit potential. The researchers broke the characteristics of a hit song into twenty-three differentiating factors including tempo, length, harmonic simplicity, mode, relative loudness, inherent energy, danceability, and stability of the song's beat (Scoreahit.com 2013). The researchers also used a time shifting algorithm that learned optimum features of the songs in the dataset through time using release date.

Some of the conclusions reached by the study seem fairly apparent to students of popular music history yet become validated by the program's output. The study results include:

1. Pop music hits from the 1950s through the early 1970s tended to be harmonically simpler than non-hits.
2. At the end of the 1970s through the early 1980s danceability became an important factor in determining a hit song.
3. From the late 1980s forward songs at the top of the charts became more harmonically complex than songs at the bottom.
4. Since the late 1980s, simple binary rhythms have proven to be more successful than complex rhythms.
5. Slow songs such as ballads were popular in the 1980s and 1990s, while listeners in the new millennium prefer fast songs.
6. Loudness "wars" are real and can be measured. The dynamic range of music has decreased every decade resulting in progressively louder songs (De Bie 2011).

The "score a hit" equation does not always choose a hit, however. The researchers admitted in June 2012 that the most recent cumulative performance is around sixty percent. Examples of the program's failure are *November Rain* and *Man in the Mirror*, which both defied conventions in tempo and loudness. However, the researchers attribute the success of these outliers to other factors that cannot be measured by the program such

as artist popularity, music video impact, and lyric content. Another interesting fact about the score a hit program is that it constantly evolves with public taste. Since the pool of chart-topping hits is always growing and changing, the machine learning algorithms employed by the researchers in this study continue to update themselves as musical tastes evolve.

Other Music-Focused Hit Song Science Studies and Research

Gary Burns (1987) provided a framework of categories in which popular music hooks fall (lyrical, melodic, instrumental, etc.), and analyzed each of these types of hooks by giving examples of popular songs.

In 2005, Ruth Dhanaraj and Beth Logan from Hewlett Packard Labs conducted a study titled "Automatic Prediction of Hit Songs." The researchers considered a database of 1,700 songs. They scanned song lyrics using probabilistic latent semantic analysis (PLSA), and also scanned timbral aspects of the audio using mel-frequency cepstral coefficients (MFCCs). Their results indicated that lyric-based features were slightly more effective than audio-based features at predicting hits. When they combined lyrics and audio they found that they achieved the highest rate of prediction using 32-sound audio features, and 8-topic lyric features. However, the study does not further define which audio and lyric features were the most accurate predictors.

In 2008, François Pachet and Pierre Roy of Sony Computer Science Laboratories published the study "Hit Song Science is Not Yet a Science." The researchers argued that sustained claims made in the MIR community and in the media about the existence of hit song science cannot be validated. The data used in the study was mined from the HiFind Database. The researchers analyzed 32,000 songs using 16 identifiers that included: style, genre, and musical setup; and main instruments, variant, dynamics, tempo, era/epoch, metric, country, situation, mood, character, language, rhythm, and popularity. The researchers concluded that song popularity prediction using algorithms is not any better than random guesswork.

In 2012, Dr. Alisun Pawley and psychologist Dr. Daniel Müllensiefen conducted a study in which they gathered data in the nightclubs across northern England. Pawley recorded each song played in the nightclub and measured the proportion of people singing along to it. She then did a musical analysis of a large subset of songs regarding the vocal performance on the recording, as well as the structure of the songs.

The researchers found that long and detailed musical phrases, multi-pitch changes in a song's hook, male vocalists, and vocalists straining to sing at the top of their registers compelled crowds to sing along. Topping their list of songs that stirred listeners was the classic hit *We Are the Champions* by the band Queen (Pawley and Müllensiefen 2012).

In his book, *Murphy's Laws of Songwriting* (Murphy Music Consulting, Inc., 2011), ASCAP vice president Ralph Murphy discusses what makes a song commercially viable within the country radio format. Murphy discusses everything from audience psychology to song themes, tempos, pronouns, and forms, and gives advice to the aspiring songwriter.

David Penn runs the popular website www.hitsongsdeconstructed.com, which is "dedicated to identifying what makes a song a hit." The site offers reports for subscribers with in-depth statistical analysis of current pop songwriting trends.

Jay Frank, former senior vice president of music strategy at CMT, and head of music programming at Yahoo, also attempts to give statistically driven advice to aspiring producers, songwriters, and music business people who wish to create commercial hits in the new millennia. In the text *Futurehit.DNA* (Futurehit, Inc., 2009), Frank points out that the digital revolution has made music discovery harder and the ability to keep the listener's attention more difficult. He analyzes past and present music production, songwriting, and packing trends and gives great insight into how to reach the consumer in today's market. He provides fifteen factors on how to adapt music productions to interface with modern standards and business models.

Lyric-Related Studies

It should be noted that not all attempts at predicting hits focus on deconstructing the DNA of a song's audio characteristics. As mentioned earlier, Ruth Dhanaraj and Beth Logan's results (2005) indicated that lyric-based analysis along with audio analysis is somewhat more effective than audio-based analysis alone at determining the success of songs. In 2012, Bhaukaurally, Didorally, and Pudaruth created a simple software program that automatically generated lyrics to a given melody and then compared the correlation to the existing hit lyrics with 48.15% of study participants identifying the computer-generated lyrics as written by a human songwriter.

An archetype is a universally understood pattern of behavior or a

prototype upon which others are copied, patterned, or emulated. Archetypes are used in myths and storytelling in all cultures. Marc Kuchner, a NASA scientist and songwriter, studied several hundred country songs, identifying some common archetypes in country music. Kuchner maintains that twelve stock characters continue to reappear in song lyrics, or any story. These include the Innocent (innocent child), the Outlaw (the rebel), the Sage (giver of wisdom), the Hero/Warrior, the Lover, the Everyman (regular guy or gal on the street), the Joker, the Explorer (adventurer), the Caregiver, the Wizard (magician), the Creator (Einstein), and the Ruler (the CEO). Examples of these in contemporary film culture are Star Wars' characters, Luke Skywalker as the Innocent (naïve and dressed in white), grey-bearded Obi-Wan Kenobi as the Sage, Han Solo as the Outlaw, and Darth Vader as the Ruler. Kuchner is also able to apply these archetypes to music. For example, Tim McGraw's song *Nothing To Die For* features the narrator as a Sage who gives his wisdom to a drunk driver. In Sugarland's *It Happens* the narrator takes the role of an Innocent in her attitude toward life.

Medical Studies

A group of researchers lead by Dr. Greg Berns conducted research at Emory University School of Medicine on adolescents, ages 12-17, using magnetic resonance imaging (MRI). The researchers used fifteen-second clips from bands on Myspace and measured the neurobiological responses to the songs. The participants were asked to rate each song on a scale of one to five. The bands had not become popular yet and none of the songs had charted on the *Billboard* charts. Originally, the data from the study was meant to evaluate teen conformity when given their peers' opinions of each song. However, when Berns evaluated the data years later, he identified a statistically significant correlation between participant's neurobiological responses and each song's sales figures from 2007 to 2010. Berns stated, "The brain responses could predict about one-third of the songs that would eventually go on to sell more than 20,000 units." The participant's ratings from one to five however did not correlate. The results of this study suggest it may be possible to use innate responses from a sample of people across the population to predict commercial success of a song (Melville 2011).

Methodology

Attributes for this study were compiled from the Billboard Hot 100 charts found online at http://www.billboard.com. The Billboard Hot 100 chart ranks the popularity of singles in all genres in the United States, offering an industry recognized data point to identify the commercial success of a song. The chart is issued weekly by Billboard and chart rankings are based on radio play and sales as a "representative selection of popular music across time in America." Billboard.com defines the Hot 100 chart as, "the week's most popular current songs across all genres, ranked by radio airplay audience impressions as measured by Nielsen BDS, sales data as compiled by Nielsen SoundScan, and streaming activity data from online music sources tracked by Nielsen BDS. Songs are defined as current if they are newly-released titles, or songs receiving widespread airplay and/or sales activity for the first time." It should be noted that in March 2012, during the timeframe of this study, *Billboard* began to incorporate its on-demand songs chart into the equation that compiles the Hot 100 (Freeman 2012).

The dataset used in this study was Billboard Hot 100 charts, January 1, 2011 through April 31, 2012, which included 136 songs. The Billboard 100 was chosen as it was primarily a chart of singles (not albums) and was not genre specific. The majority of the data was downloaded directly from the online charts. Additional data such as identifying beats per minute (BPM) was found by listening to songs on the Spotify service, and using Tempo Tapper software. If a song's run on the Billboard 100 started in 2011 and carried into 2012 (e.g., Adele's *Rolling In The Deep*), the data was traced back to the week that the song appeared on the chart. *Harlem Shake* was the only instrumental song to appear on the Hot 100 during this period so it was excluded from lyrical analysis. Metrics chosen for this study are those that 1) were easiest to gather data for, and 2) easiest for production and songwriting students to immediately apply to their creative process.

Results and Discussion

Introduction Length

The average length of the introductions to the songs in this dataset is 11 seconds, with 56% of the introductions lasting 0 to 10 seconds. It should be noted that 26 of the 136 songs (19%) have *no introductions* (Figure 1). Jay Frank argues that the commercial purpose for a song's

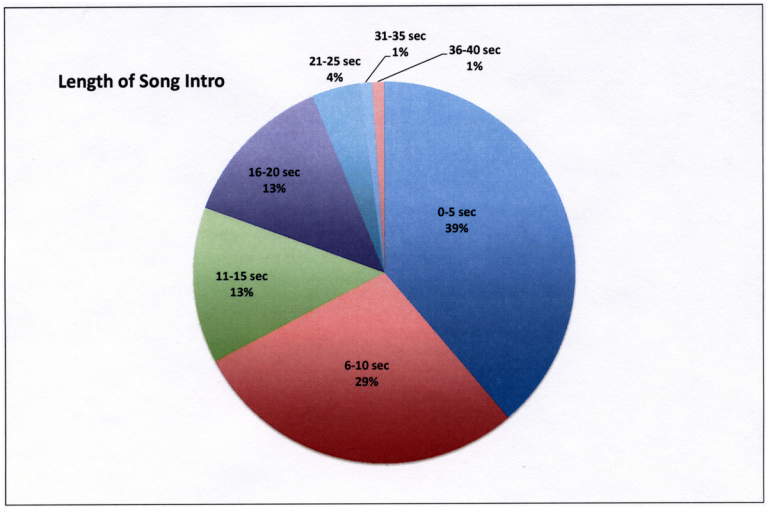

Figure 1. Length of song introductions.

introduction in the past was to give radio DJs "talk over time" (Frank 2009). With technologies that are portable and digital, skipping a non-engaging intro is easy for the listener. In today's market the consumer's attention span is shorter than ever, resulting in the need for the producer and songwriter to employ "tight engaging introductions," or sometimes no introductions at all (Frank 2009).

Frank argues that after the first listen, introductions of modern songs should trigger something unique about it in the first four seconds. If this does not happen the listeners will not be able to identify the song (from their first listen) and therefore not be able to purchase it immediately on iTunes (Frank 2009). Additionally, Murphy asserts that the producer/songwriter must get listeners involved within the first sixty seconds or less, or they will turn off the song (Murphy 2011). Songs in the digital streaming format need a minimum of sixty seconds of listening time to count as a play, and thus generate royalty earnings (Frank 2009).

It is worth noting that 33 of the 136 songs (24%) in this dataset begin with either a chorus or hook, a trend that harkens back to the commercial music of the 1930s and 1940s with the Verse, Verse, Chorus, Verse (AABA) style form.

Song Length

The average length of all songs in the dataset was three minutes,

fifty-one seconds (3:51). Thirty-one percent of the songs were over four minutes (Figure 2). One reason for the increase in average length of a song from the past standard of 3.0 to 3.5 minutes is the inclusion of sources into the Billboard Hot 100 (YouTube, streaming sites, etc.) that do not rely on song length as much as traditional radio did. A good example of this trend is *Can't Hold Us* by Macklemore & Ryan Lewis (featuring Ray Dalton), that includes a development section in the middle of the song that doesn't contribute lyrically (horns and "nanas") and lasts approximately one minute.

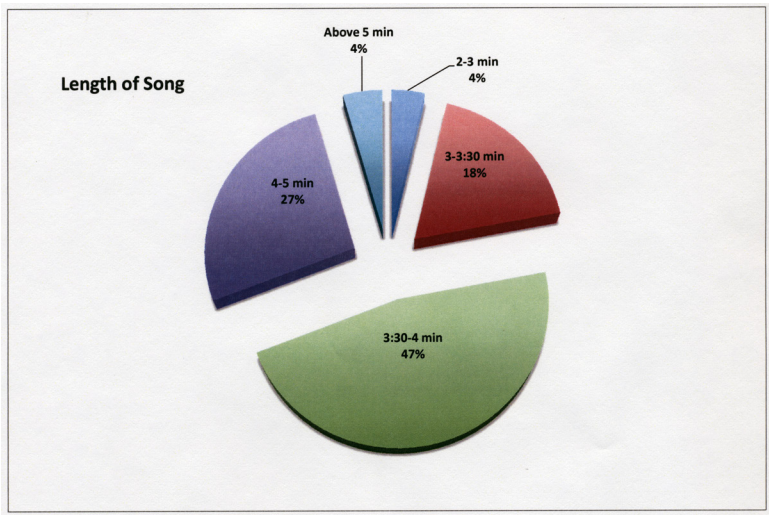

Figure 2. Length of songs.

Song Tempo

The average tempo for the songs in the dataset was 110.19 beats per minute (BPM). Fifty percent of the 136 songs in the dataset were 120 BPM, or faster (Figure 3). The mode of all tempos was 128 BPM, meaning ten songs featured that popular tempo including, *Hey Baby (Drop It to the Floor*, *S&M*, *Super Bass*, *Tonight (I'm Lovin' You)*, *The Edge of Glory*, *Last Friday Night (T.G.I.F.) Without You*, *Good Feeling*, *Wild Ones*, and *Domino*. *Super Bass* is an example of a song that went from half time to full time. In cases such as this, the tempo of the chorus or main hook was used as the tempo identifier.

Since the end of the 1970s, danceability has become an important

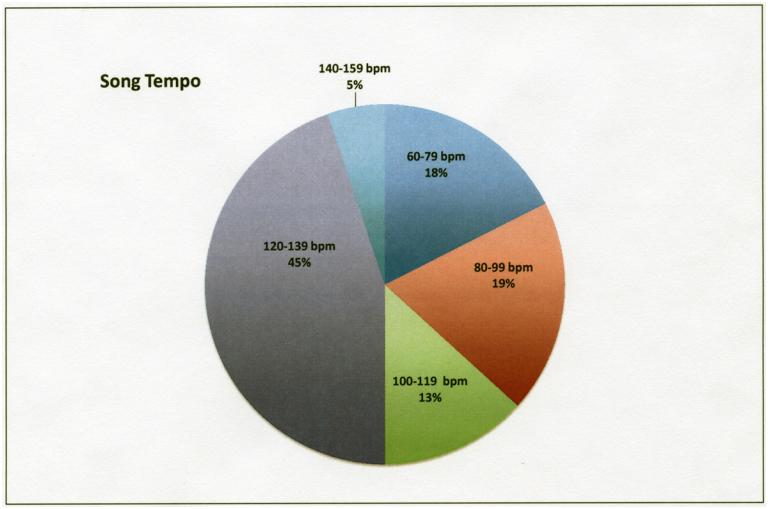

Figure 3. Song tempos in beats per minute (BPM).

factor to determine a hit song. This fact is evidenced by average tempo and the fact that 48 of the 136 songs (35%) exhibited some type of electronic dance music (EDM) influence including Electro, Trance, House, and Dubstep (De Bie, et al. 2011). The Echo Nest dataset defines danceability as "the ease with which a person could dance to a song, over the course of the whole song."

Point of View

In this section, the song perspective, or song "viewpoint," is analyzed. The viewpoint in first person was defined as using the pronouns "I, me, we, us, or mine." Third person songs were considered storyteller songs where the singer acts as the observer and describes the outward scene to the listener using pronouns such as "he, she, they, her, him, or it." The viewpoint in second person perspective was considered the artist speaking directly to someone. The pronouns considered in this scenario were "you, us, and we."

Every song in this dataset is sung from the narrator's point of view to another party (second person). Some songs such as *Gangnam Style*, *Pumped Up Kicks*, and *Super Bass*, seem to transition into third person but ultimately, the story is still being told and described by the narrator (i.e., the artist). The use of second person (speaking directly to the listeners) draws them in and holds their attention, as opposed to telling a story

about a third party (Murphy 2011). This was evidenced by the dataset. 101 of the 136 songs (74%) speak to the listeners by using the word "you" in the lyric. If they didn't use "you" the other songs used the collective form, such as "we". 45 songs (33%) also used the word "we" in the lyric to engage the listeners.

According to Murphy, the only time popular songs should use the third person is if the central character in the song is too old, too young, not cool enough, or not the image the singer wishes to project. An example would be a singer who does not have children, but is singing about a character in third person who does. Murphy argues that not too many storyteller songs exist in pop music today.

Song Subject

Love ruled the game when it came to the subject of songs in the Billboard Hot 100 over the past year-and-a-half. 88 of the 136 songs (65%) were about love/sex, framed in either a positive or negative theme. 20 of the 136 songs (15%) were about partying, and 19 of the 136 songs (14%) were about pride, or providing inspiration to the listener. (See Appendix A for a synopsis of song themes.)

Archetype

A good song, just like an effective brand, can evoke an archetype we have inside us. When we hear a song that contains an authentic archetype, the song brings meaning to our lives (Kuchner 2009).

Don't let Paul McCartney tell you there are too many silly love songs; the Lover archetype is by far the favored narrator role (Table 1). The other two popular roles for the narrator are Explorer (a young adult seeing the world and having new experiences such as in the song *Home* by Phillip Phillips), and the Sage, dispensing inspirational advice such as in the song *Firework* by Katy Perry.

Use of Title in Song

Jay Frank argues that a song's hook and title should provide the public instant accessibility for purchase and 87% of the songs reviewed follow his advice. However, the songs *Rocketeer*, *S&M*, *E.T.*, *The Lazy Song*, *Til the World Ends*, *Dirt Road Anthem*, *Ni**as in Paris*, and *Thrift Shop* do not include the use of the title in the lyrics.

Archetype	Song Count	Percent
Everyman	13	10%
Explorer	22	16%
Lover	55	40%
Innocent	2	1%
Rebel	8	6%
Sage	18	13%
Warrior	18	13%

Table 1. Archetypes by count and percent.

Song Form

Echoing back to the AABA song form, and the "get-to-the-chorus-quick" mentality, 33 (24%) of the songs started on the chorus/hook with little or no musical introduction, and 12 songs (9%) had a brief musical intro but went straight to the chorus. In other words, 33% of the songs started with a chorus, not a verse. 37 of the songs (27%) had a rap integrated somewhere in the song (verse, bridge, or throughout). Only 7 of the 136 songs (5%) had some type of instrumental solo section.

Song forms varied widely but two of the most popular were:

> Intro, Verse, Pre-Chorus, Chorus, Verse, Pre-Chorus, Chorus, Bridge, Chorus; and
>
> Intro, Verse, Chorus, Verse Chorus, Bridge Chorus.

Two of the most interesting and inventive song forms were Will.I.Am's *Scream and Shout*:

> Intro, Pre-Chorus, Chorus, Hook, Verse, Pre-Chorus, Chorus, Hook, Bridge, Chorus, Chorus, Outro;

and Fun's *Some Nights*:

> Chorus, Hook, Verse, Turn, Chorus, Bridge, Break, Vocal Solo, Hook, Outro Verse with Guitar Solo

Other interesting song anomalies include *Just Can't Get Enough*, which changes tempo and ends with the bridge; *Dirt Road Anthem*, a country song with rap verses and a guitar solo; and *Don't Wake Me Up*, which starts with spoken word. A synopsis of song forms is found in Appendix B.

Artist Collaborations, Gender, and Number of Songwriters Per Song

An amazing 47 of 136 songs (35%) in the dataset featured collaborations between artists, for example Pitbull, featuring T-Pain. The most common type of collaboration was a typical pop song with a rap verse injected into the form. This was present in one out of four of the songs.

Also, male vocals dominated the charts. 80 of the songs (59%) featured a male lead singer, with female lead vocals at 49 songs (36%). Only 4% featured both genders. The obvious fact is that choosing two types of artists from two different genres to perform on a song widens its appeal and chances for commercial success. However, there may be a musical reason why this technique is effective. Frank writes that in order to be a commercially successful song in today's market, a song cannot rely on a monotonous, sampled groove in order to be hit-worthy. It must have several textures and style changes. Additionally, the listener typically hits the "boredom mark" with a song at around two minutes of play. If something interesting like a fast rap or a developed instrumental section can be inserted into the song, Frank maintains it will keep the listener's interest. He cites the song by the Gorillaz, *Feel Good Inc.,* as an example of a constant shift in styles contributing to a song's popularity (Frank 2009).

Other Data Analysis

In this section, only songs that had moved off the Hot 100 by the end of the study period (April 31, 2012) were considered. This was done so that their total weeks on the chart could be analyzed in relation to other variables. The Pearson correlation (which measures how closely variables are related) was used to analyze several relationships within the dataset. (Results can range with "R values" from -1, a perfect negative correlation, to +1, a perfect positive correlation, with a result of 0 meaning there is no relationship.) No significant R values were found between the variables (see Table 2).

Variable 1	vs. Variable 2	"R" Value
Weeks on Hot 100	Number of times title appears in song	-0.070744647
Weeks on Hot 100	Number of songwriters	-0.082844834
Number of songwriters	Number of times title appears in song	0.070472709
Weeks on Hot 100	Beats per minute	0.171480492
Weeks on Hot 100	Song length	0.016943914
Song length	Beats per minute	-0.243176415

Table 2. Pearson correlation.

Conclusions

A hit is a moving target. Even though there may never be a set formula for a hit song, we can use evolving trends in production and songwriting to help guide our students to make the most commercially successful product possible. Students need to be aware that the public's taste does shift over time. The study presented here concentrated in finding common threads among songs that were already deemed current hits by *Billboard*.

The evidence suggests that students studying the craft of production and songwriting would have the best chance of being "commercially successful" in today's music market if they applied the following techniques:

- Write and produce a song without an introduction (or a very short one)
- Begin the song with the chorus. Do not worry too much about song length, as long as it is shorter than four minutes
- Set the song at a danceable tempo and incorporate some EDM influences
- Compose lyrics from a narrator's point of view with pronouns aimed directly toward the listener (you, we, and us)
- Write about love and have the "narrator" assume the role of the "Lover" archetype. Do not mix archetypes
- Use the song title in the hook/chorus lyrics throughout the song (a minimum of fifteen times)

- Do not be afraid to get other writers involved in the songwriting and production process. In fact, there is a better chance of success with a team of three or four writers
- Use a variety of textures in the production to appeal to listeners from multiple genres
- Play with song form; it does not have to be typical
- Don't be afraid to feature more than one artist on the track, it will likely increase the song's chance of success

Songwriting and production students also need to understand that marketing, radio promotion, tours, and even the artist's look all contribute to making a song a chart success. Follow-up studies could include a multivariate analysis and comparison of these factors alongside the data presented above to see how much external factors versus song formula play into making a song a hit. Much of what appeals to the public about music is that it is a combination of familiarity and surprise. Therefore, there will always be a place for musical creativity in and out of the classroom.

Public demand is a driving force in a market economy. However, personal expression in music will always flourish. Students should learn about music's changing forms and application within a commercial context. Hopefully, we can use the information from this study as one of many tools to guide our students toward creating a successful commercial song or commercial music production.

Appendix A

Synopsis of Song Themes: Billboard Hot 100 Charts Jan. 1, 2011 through April 31, 2012

Synopsis
A message about having fun, doing what you want, and not caring what other people think
A message about letting go of everything and partying on the weekend
A message about lovers seeing the world together
A message about partying and having a good time
A song about accepting your past and your flaws because we're all made perfect
A song about doing whatever it takes to get back up on your feet and live out your dreams
A song about girls who can be both classy and crazy when appropriate; Oppan Gangnam Style = "(I have my own style) It's Gangnam Style," so the guy is saying that's his style when it comes to women because he acts the same
A song about having fun for the sake of living while you're still young
A song about "kicking back" and being lazy for a day
A song about living your life while you're still alive, regardless of consequences
A song about loving yourself no matter what other people think, specifically targeted at the LGBT community
A song about making the best of your time with someone and partying like it's your last night
A song about not being able to hold someone back (party, love, music-industry, etc.)
A song about partying and letting everything in your life go for a night
A song about taking it slow with someone because you care enough not to want to mess anything up
A song about the misunderstood members of society partying and celebrating their differences
A song about a bunch of young people causing trouble because they're bored
A song about a guy who's gone crazy and wants to kill the hipsters at his school
A song about BDSM
A song about believing in yourself when life gives you challenge
A song about dancing like it's the end of the world
A song about embracing your own beauty and potential even though you may feel insignificant
A song about getting on the dance floor and having a good time
A song about going on in the face of opposition
A song about gossip putting friction into a potential relationship

A song about having a good time at a party
A song about having fancy things in the future
A song about having fun and doing what you want because that's what life is supposed to be for
A song about hooking up with someone and having fun like there's no tomorrow
A song about how someone is addicted to the love of someone else
A song about hustling
A song about leading a revolution; breaking out of prison, etc. (escape song)
A song about letting go of everything else and dancing to the music
A song about living on the edge with someone you love
A song about love—and how this person makes you feel. "I love the way you make me feel."
A song about not caring about what other people think of you
A song about partying all night and not caring
A song about partying and celebrating being young
A song about seeing the world and living your life to the fullest
A song about sexual methods
A song about the world coming apart but two lovers still having each other
A song that expresses the existential angst of a young protagonist who is a long way from home
Confident guy singing about hitting on a woman in first-person
Girl asking a guy to be different than all of the others and give her a good time
Girl asking a guy to love her like she's the only person right for him (the only girl in the world)
Girl asking a guy where he's been all of her life because she's been searching for someone like him
Girl finally lets go of a guy that she's been hanging onto for too long
Girl getting angry at herself for getting with a guy even though she knew he was trouble
Girl getting back on her feet stronger after an ended relationship
Girl getting her hopes up on a guy and telling him to call her
Girl going after a crazy guy for the thrill
Girl hoping to get with a guy after looking for someone for a long time
Girl looking back and realizing that her failed relationship made her stronger in the end
Girl looks back and realizes that she should've taken the chance she had with a good friend while their feelings were mutual and before he found someone else
Girl looks back at a time that she rebounded after a bad relationship and both ended badly
Girl looks back on a destructive relationship that was good at the time

Girl looks back on a relationship that she thought was going to end up serious and last a lifetime
Girl recalling the crazy stuff she did last Friday night and how she would do it all again
Girl seeking revenge after being wronged in a relationship
Girl singing about a relationship that made her forget all her past doubts and problems with love
Girl singing about a relationship that was close but ended suddenly
Girl singing about putting her defenses up, so she won't fall in love with this one guy
Girl still holding onto a lost relationship and hoping that the guy will come back to her like in a movie
Girl talking about a guy that's caught her eye
Girl talking about being in love with someone who's bad for her
Girl talking about how her and her mate feel larger than life when they're together
Girl talking about how she needs to escape from life for awhile
Girl talking about how she's addicted to the love of a guy
Girl talking about how she's going to keep going strong to spite a guy that did her wrong in a relationship
Girl talking about the otherworldly love she gets from a guy
Girl talking about wanting to go all night with a guy
Girl telling a fickle ex-boyfriend that she's not ever dating him again
Girl telling a guy that she's coming back to town to give him another chance since they have history
Guy begging his friend to remember his former self he's lost sight of
Guy being thankful for the good time a girl gave him, song about living in the moment
Guy holding onto love that will inevitably fade
Guy letting a girl know that he will be there for her whenever she's ready after going through a destructive relationship with someone else
Guy promises a girl that he will always be waiting for her, and if she doesn't return, at least they had a good thing going
Guy rapping about the process of getting to the top (he started at the bottom)
Guy recalling a relationship that ended in burning bridges
Guy remembering and trying to come to terms with the struggles of his past
Guy reminiscing about old times
Guy singing about dancing provocatively and/or hooking up with a girl
Guy singing about how all he needs is a girl
Guy singing about how the only thing he is sure about in his life is his relationships with a girl
Guy singing about life-changing events, but his father telling him not to worry ("see heaven's got a plan for you")

Guy singing about riding around with his “baby” (on back roads, through farm towns, etc.)
Guy singing about saying goodbye to his old ways, and coming back to the “love of his life”
Guy singing about showing a girl about love; when he’s in his suit & tie
Guy talking about “hooking up” with a girl at a club
Guy talking about hooking up with a girl
Guy talking about how a girl has sex with guys for all the bad reasons, and he wants to be the good
Guy talking about how awesome his car is with a secondary reference to his hometown football team
Guy talking about how he doesn’t understand why a girl has such low self-esteem, and that her modesty is what makes her beautiful
Guy talking about the girls at a strip bar
Guy talks about going to a strip club and how much he likes girls’ asses
Guy talks about how he’s going to impress a girl and win her over for the night
Guy talks about how his world will turn dark and rainy if his girlfriend leaves him
Guy talks about how lost he is without a certain girl
Guy talks about how much power he has and how good he feels about himself
Guy talks about how the girl he’s seeing waits up for him every night and she gets horny around 5 a.m.
Guy telling a girl not to be afraid as they go from place to place, physically and in their relationship
Guy telling a girl off after she used him and moved on to the next guy
Guy telling a girl she’s beautiful and can love someone, even though she doesn’t think she can after all of the destructive relationships she’s had
Guy telling a girl that even though she has insecurities about herself and her past, he will love her
Guy telling a girl that even though she never truly had feelings for him, he would do anything for her
Guy telling a girl that even though they’ve had a rough past, they can put that aside and just be two young people
Guy telling a girl that he loves her for who she is and she should never change
Guy telling a girl that he’s proud of her for being a responsible person and she shouldn’t waste her time on people that don’t respect that
Guy telling a girl that no matter what else happens in his life, he’ll be happy if she loves him
Guy telling a girl that she’s what he’s been looking for
Guy telling a girl that they need to break up for her own good because she has given him more than he’s willing to give back
Guy telling a girl why she should be his girlfriend

Guy trying to contain thoughts of seducing a girl
Guy trying to hold a broken relationship together with physical attraction
Man and woman singing about wanting the other to stay
Man realizing his past relationship was bad after meeting new girl
Man regretting all of the time he spent with a woman and the potential they could have had
Man seducing a woman
Man shocked when he unexpectedly runs into a woman for the first time in forever and admits he still cares for her
Man singing about how he hopes woman's new guy treats her better; and does the things he should have for her
Man singing about impressing people with awesome swag he got from thrift stores
Man talks about how easily he gets everything he wants, portrays hedonism
Men rapping about their problems with bad girls, and solving their problems by having intercourse with them…
Men rapping about their women—and stating they're good as long as the women love them
Possibly a song about being afraid of the dark, or a girl recalling someone helping her through a rough time in her life and how it made her stronger
Singer believes he is the center of attention whenever he goes out
Singer compares love to music, saying that you have to listen to a song over and over and it will grow on you, and that a girl should give him a chance
Song about two people getting the "party" started
Song about drinking and smoking all the time
Song about how perspectives on life and/or dreams can change and result in a loss of innocence
Song about not caring and just having a good time
Song about staying strong in the face of hardship
Woman refusing to get back with a man because he acts like he owns her and doesn't know a thing about her
Woman singing about a relationship being "bent," but doing what it takes to fix it and love again

Appendix B

Synopsis of Song Forms: Billboard Hot 100 Charts Jan. 1, 2011 through April 31, 2012

Song Forms
Intro, Verse, Chorus, Verse, Chorus, Bridge (with Chorus), Chorus
Hook, Rap Verse, Hook, Break, Rap Verse, Hook, Outro
Chorus, Verse, Chorus, Verse, Chorus, Bridge, Chorus
Verse, Chorus, Verse, Chorus, Bridge, Chorus
Verse, Pre-Chorus, Chorus, Verse, Pre-Chorus, Chorus, Bridge, Chorus, Outro
Intro, Verse, Pre-Chorus, Chorus, Verse, Pre-Chorus, Chorus, Bridge, Chorus, Outro
Verse, Pre-Chorus, Chorus, Verse, Pre-Chorus, Chorus, Break, Chorus
Hook, Rap Verse, Hook, Verse, Chorus, Hook, Verse, Chorus, Bridge, Hook, Chorus
Hook, Rap Verse, Hook, Rap Verse, Hook, Bridge, Hook
Verse, Pre-Chorus, Chorus, Verse, Pre-Chorus, Chorus, Bridge, Chorus
Intro, Rap Verse, Chorus, Rap Verse, Bridge, Chorus, Outro
Intro, Chorus, Break, Verse, Chorus, Break, Chorus, Outro
Verse, Pre-Chorus, Chorus, Rap Verse, Chorus, Verse, Pre-Chorus, Chorus, Pre-Chorus, Chorus, Outro
Chorus, Rap Verse, Chorus, Rap Verse, Chorus, Bridge, Chorus, Outro
Intro, Verse, Pre-Chorus, Chorus, Verse, Pre-Chorus, Chorus, Bridge (with Chorus), Chorus, Outro
Intro, Verse, Pre-Chorus, Chorus, Verse, Pre-Chorus, Chorus, Rap Bridge, Chorus, Outro
Verse, Pre-Chorus, Chorus, Verse, Pre-Chorus, Chorus, Bridge, Chorus
Chorus, Rap Verse, Chorus, Rap Verse, Chorus, Bridge, Chorus, Outro
Hook, Verse, Chorus, Hook, Verse, Chorus, Bridge, Chorus, Outro
Intro, Verse, Pre-Chorus, Chorus, Verse, Pre-Chorus, Chorus, Break, Chorus
Chorus, Rap Verse, Chorus, Rap Verse, Chorus, Bridge, Chorus
Intro, Rap Verse, Chorus, Rap Verse, Chorus, Rap Verse, Chorus, Outro
Intro, Verse, Chorus, Break, Verse, Chorus, Bridge, Chorus, Outro
Intro, Verse, Pre-Chorus, Chorus, Verse, Pre-Chorus, Chorus, Bridge, Chorus, Outro
Chorus, Rap Verse, Chorus, Rap Verse, Chorus, Break, Bridge
Intro, Verse, Chorus, Break, Verse, Chorus, Bridge, Chorus, Outro
Chorus, Verse, Pre-Chorus, Chorus, Verse, Pre-Chorus, Chorus, Bridge, Chorus
Intro, Verse, Pre-Chorus, Break, Verse, Pre-Chorus, Break, Chorus, Break, Chorus
Intro, Verse, Pre-Chorus, Chorus, Verse, Pre-Chorus, Chorus, Bridge, Chorus
Intro, Rap Verse, Pre-Chorus, Chorus, Rap Verse, Pre-Chorus, Chorus, Bridge, Chorus

Intro, Hook, Break, Verse, Chorus, Break, Bridge, Chorus, Outro
Intro, Chorus, Rap Verse, Pre-Chorus, Chorus, Rap Verse, Pre-Chorus, Chorus, Rap Verse, Pre-Chorus
Intro, Verse, Chorus, Verse, Chorus, Break, Bridge, Chorus, Repeat Verse
Intro, Chorus, Rap Verse, Chorus, Rap Verse, Chorus, Guitar Solo, Chorus, Outro
Hook, Verse, Pre-Chorus, Chorus, Hook, Verse, Pre-Chorus, Chorus, Break, Bridge, Chorus, Outro
Verse, Pre-Chorus, Chorus, Verse, Pre-Chorus, Chorus, Break, Bridge, Chorus, Outro
Intro, Verse, Pre-Chorus, Chorus, Verse, Pre-Chorus, Chorus, Bridge (with Chorus), Chorus
Intro, Rap Verse, Pre-Chorus, Chorus, Rap Verse, Pre-Chorus, Chorus, Bridge, Chorus
Intro, Verse, Pre-Chorus, Chorus, Verse, Pre-Chorus, Chorus, Bridge, Chorus, Outro
Intro, Verse, Chorus, Verse, Chorus, Break, Chorus, Outro
Intro, Verse, Pre-Chorus, Chorus, Verse, Pre-Chorus, Chorus, Sax Solo, Chorus, Outro
Intro, Rap Verse, Pre-Chorus, Chorus, Rap Verse, Pre-Chorus, Chorus, Rap Verse, Pre-Chorus, Chorus, Outro
Chorus, Rap Verse, Chorus, Rap Verse, Chorus, Bridge, Chorus, Outro
Intro, Verse, Pre-Chorus, Chorus, Verse, Pre-Chorus, Chorus, Break, Sax Solo, Chorus
Chorus, Rap Verse, Chorus, Rap Verse, Bridge, Chorus
Chorus, Rap Verse, Pre-Chorus, Chorus, Rap Verse, Pre-Chorus, Chorus, Bridge, Chorus
Intro, Verse, Chorus, Verse, Chorus, Bridge, Chorus
Intro, Verse, Pre-Chorus, Chorus, Verse, Pre-Chorus, Chorus, Bridge, Chorus, Outro
Intro, Verse, Pre-Chorus, Chorus, Verse, Pre-Chorus, Chorus, Bridge, Chorus, Outro
Intro, Verse, Pre-Chorus, Chorus, Verse, Pre-Chorus, Chorus, Break, Chorus
Chorus, Verse, Chorus, Verse, Chorus, Break (with Chorus), Chorus
Intro, Verse, Pre-Chorus, Chorus, Verse, Pre-Chorus, Chorus, Guitar Solo, Bridge, Chorus, Repeat Verse
Intro, Hook, Rap Verse, Hook, Rap Verse, Hook, Rap Verse, Hook, Rap Verse, Hook, Break, Bridge
Intro, Rap Verse, Pre-Chorus, Chorus, Rap Verse, Pre-Chorus, Chorus, Bridge (with Chorus), Chorus
Intro, Verse, Pre-Chorus, Chorus, Verse, Pre-Chorus, Chorus, Bridge, Chorus, Outro
Intro, Verse, Pre-Chorus, Chorus, Break, Verse, Pre-Chorus, Chorus, Bridge, Pre-Chorus, Chorus
Intro, Verse, Hook, Break (with Hook), Verse, Hook, Break (with Hook), Hook, Outro
Intro, Verse, Pre-Chorus, Chorus, Verse, Pre-Chorus, Chorus, Bridge, Chorus
Intro, Verse, Pre-Chorus, Chorus, Break, Verse, Pre-Chorus, Chorus, Bridge (with 1st Verse), Chorus, Break, Chorus

Hook, Verse, Double Hook, Verse, Double Hook, Bridge, Hook
Intro, Chorus, Rap Verse, Chorus, Rap Verse, Chorus, Break, Bridge, Chorus
Intro, Verse, Pre-Chorus, Chorus, Break, Verse, Pre-Chorus, Chorus, Bridge, Pre-Chorus, Chorus, Outro
Intro, Rap Verse, Chorus, Rap Verse, Chorus, Bridge, Chorus, Outro
Intro, Verse, Pre-Chorus, Chorus, Verse, Pre-Chorus, Chorus, Bridge (with Chorus), Chorus
Intro, Rap Verse, Chorus, Rap Verse, Break, Chorus, Outro
Intro, Verse, Chorus, Verse, Chorus, Bridge, Chorus
Chorus, Double Rap Verse, Chorus, Double Rap Verse, Chorus, Bridge, Chorus, Outro
Intro, Verse, Guest Verse, Verse, Break, Guest Verse
Intro, Verse, Chorus, Verse, Chorus, Guitar Solo, Bridge, Chorus, Outro
Hook, Rap Verse, Hook, Rap Verse, Hook, Outro
Intro, Verse, Pre-Chorus, Chorus, Verse, Pre-Chorus, Chorus, Bridge, Chorus
Hook, Rap Verse, Hook, Rap Verse, Bridge, Hook, Verse, Hook
Intro, Verse, Chorus, Verse, Chorus, Break, Chorus
Intro, Verse, Pre-Chorus, Chorus, Verse, Pre-Chorus, Chorus, Bridge, Chorus
Intro, Verse, Chorus, Verse, Chorus, Bridge, Chorus, Refrain/Outro
Intro, Verse, Chorus, Verse, Chorus, Bridge, Chorus
Intro, Verse, Break, Verse, Chorus, Break, Bridge, Chorus, Outro
Chorus, Rap Verse, Chorus, Rap Verse, Chorus, Bridge, Chorus, Outro
Hook, Pre-Chorus, Chorus, Verse, Pre-Chorus, Chorus, Bridge, Hook, Chorus
Hook, Verse, Pre-Chorus, Chorus, Verse, Pre-Chorus, Chorus, Bridge, Hook
Intro, Verse, Chorus, Break, Verse, Chorus, Break, Bridge, Chorus
Intro, Hook, Verse, Chorus, Verse, Chorus, Double Bridge, Chorus
Intro, Verse, Chorus, Verse, Chorus, Bridge, Chorus
Intro, Verse, Pre-Chorus, Chorus, Break, Verse, Pre-Chorus, Chorus, Bridge (with Chorus), Chorus
Intro, Verse, Pre-Chorus, Chorus, Break, Verse, Pre-Chorus, Chorus, Bridge, Chorus, Outro
Intro, Verse, Pre-Chorus, Chorus, Verse, Pre-Chorus, Chorus, Bridge (with Chorus), Chorus
Intro, Verse, Pre-Chorus, Chorus, Verse, Pre-Chorus, Chorus, Bridge, Chorus
Chorus, Hook, Verse, Turn, Chorus, Bridge, Break, Vocal Solo, Hook, Outro Verse (with Guitar Solo)
Intro, Verse, Chorus, Verse, Chorus, Guitar Solo, Bridge, Chorus, Outro
Intro, Verse, Pre-Chorus, Chorus, Verse, Pre-Chorus, Chorus, Bridge, Chorus

Intro, Verse, Pre-Chorus Chorus, Break, Verse, Pre-Chorus, Chorus, Bridge (with Chorus), Chorus, Outro
Intro, Verse, Pre-Chorus, Chorus, Break, Verse, Pre-Chorus, Chorus, Bridge, Chorus
Chorus, Verse, Pre-Chorus, Chorus, Verse, Pre-Chorus, Chorus, Bridge, Chorus
Hook, Pre-Chorus, Chorus, Break, Hook, Pre-Chorus, Chorus, Break, Bridge, Hook
Intro, Verse, Pre-Chorus, Chorus, Verse, Pre-Chorus, Chorus, Bridge, Chorus
Chorus, Rap Verse, Chorus, Break, Rap Verse, Bridge, Chorus, Outro
Intro, Pre-Chorus, Chorus, Pre-Chorus, Chorus, Bridge, Pre-Chorus, Chorus
Hook, Verse, Pre-Chorus, Chorus, Verse, Pre-Chorus, Chorus, Bridge, Hook, Chorus
Verse, Chorus, Break, Verse, Chorus, Break, Bridge, Chorus, Outro
Intro, Verse, Pre-Chorus, Chorus, Break, Verse, Pre-Chorus, Chorus, Bridge, Chorus
Intro, Verse, Pre-Chorus, Chorus, Verse, Pre-Chorus, Chorus, Bridge, Chorus, Outro
Intro, Verse, Pre-Chorus, Chorus, Verse, Pre-Chorus, Chorus, Bridge, Chorus, Outro
Intro, Verse, Pre-Chorus, Chorus, Verse, Pre-Chorus, Chorus, Bridge, Chorus, Outro
Intro, Verse, Chorus, Break, Verse, Chorus, Break, Chorus, Outro
Chorus, Rap Verse, Chorus, Break, Rap Verse, Chorus, Break, Bridge, Break, Chorus
Intro, Verse, Pre-Chorus, Chorus, Verse, Pre-Chorus, Chorus, Bridge, Chorus
Intro, Verse, Pre-Chorus, Chorus (w/ Hook), Verse, Pre-Chorus, Chorus (w/ Hook), Hook
Intro, Hook, Verse, Pre-Chorus, Hook, Break, Verse, Pre-Chorus, Hook, Break, Bridge, Hook, Break, Hook
Intro, Verse, Verse, Chorus, Verse, Chorus, Bridge, Chorus
Intro, Hook, Verse, Pre-Chorus, Chorus (w/Hook), Verse, Pre-Chorus, Chorus (w/Hook), Break, Chorus (w/Hook)
Chorus, Break, Verse, Chorus, Break, Bridge, Repeat Verse, Chorus
Intro, Verse, Chorus, Break, Verse, Bridge, Chorus, Outro
Intro, Verse, Chorus, Verse, Chorus, Bridge, Chorus, Outro
Intro, Verse, Chorus, Verse, Chorus, Bridge, Guitar Solo, Chorus, Outro, Repeat Verse
Intro, Verse, Chorus, Verse, Chorus, Break, Bridge, Chorus, Outro
Intro, Chorus, Rap Verse, Chorus, Rap Verse, Chorus, Rap Verse, Chorus, Outro
Intro, Pre-Chorus, Chorus, Hook, Verse, Pre-Chorus, Chorus, Hook, Bridge, Chorus, Chorus, Outro

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