

“Plunking Notes” or Teaching Music?

A Thesis on Interactions between Music Directors and Actors in the
Rehearsal Room

Jason Belanger

Hofstra University

Advised by Jennifer Hart

May 11, 2018

Acknowledgements

This paper has been a joy to write, and I couldn't have done it without the help of many individuals from Hofstra, New York City, and beyond. I first want to thank every music director and actor who filled out my surveys, and I especially want to thank the MDs who took the time to do an email interview with me. These include Marcus Baker, Matthew DeMaria, Jason Eschhofen, Melanie Guerin, Ed Linderman, Jonja Merck, JP Meyer, Matthew Pool, David Renoni, Matthew Scarborough, Marci Shegogue, Amy Stewart, Janice Timm, and Neal Wentz. All of the responses I received were incredibly valuable and helped to bring my whole thesis together.

I also want to thank the Hofstra University Department of Drama and Dance and Music Department for all of the opportunities and support they've given me throughout the years. Although Hofstra only has a musical theatre minor and no degree program for music direction, I've gotten an incredible education here and have gotten to practice my craft countless times under the direction of people like Andy Abrams, Kerry Prep, Donna Balson, and David Fryling.

Finally, I want to say a special thank you to Jennifer Hart, my thesis advisor, and Danielle Drop, my close friend and very helpful editor. Both of these people worked for many hours, speaking with me about the thesis and helping to refine it into something of which I'm extremely proud. I could not have possibly done it without their help and guidance.

Table of Contents

Introduction.....	4
Thesis.....	7
Part I: What Does a Music Director Look Like?.....	9
History of Music Direction.....	9
Training.....	13
Survey Results – Demographics/Skills.....	15
What Does a Music Director Do?.....	19
Part II: How Can a Music Director Be Effective?.....	26
Survey Results – Teaching Methods/Actors.....	27
Music Director Interviews.....	32
Rehearsal Techniques.....	39
A New Model of Rehearsal Hierarchy.....	42
Conclusion.....	50
Appendix A.....	51
Works Cited.....	52

Introduction

“I am of the opinion that the strata of requirements and responsibilities that form the bedrock of that experience run so deep that the abstruse practice of music direction in musicals is too often underestimated and misunderstood and has therefore remained largely undocumented.” (Schimmel 3)

“There seems to be an impenetrable mystery surrounding what music directors do.” (Church 6)

“I had never thought of Music Directing as a profession.” (Eschhofen interview)

Music direction holds a peculiar place in the theatre industry – it is almost universally recognized as needed, but rarely understood or fully acknowledged. While its practitioners are often kind, intelligent managers of people and ideas, almost none of them have a degree in music direction, and many have non-arts related degrees or no college degree at all. Part of the lack of understanding is self-created; though the profession has nominally been around since the mid-20th century, there have been almost no books or other explanatory materials that have been published on a large scale. This has changed recently, most notably with Joseph Church’s *A View From the Podium* and a few others, but these texts are just beginning to reach an audience outside of music directors themselves.

Most of the mystery is the nature of the job itself, as well as how musical theatre is taught. Many college-educated theatre artists learn about many of the different jobs found throughout the production of a show, but music directing is rarely one of them. In addition, music directors (obviously) deal with music, which is often housed in a separate department that might not collaborate with the theatre department. Even some of the best musical theatre (MT) training programs only include a semester or two of music theory training, and usually only for performance majors.

This is partially because music almost seems like another language. Though every area in theatre has its own jargon, symbols, and tools, music has developed separately for millennia, and along with all of that history comes a very specific and seemingly impenetrable system of

notation and terminology. In addition, just like an actual language, many people can “speak” music without being able to read or write it, especially when they haven’t been exposed to the writing system in their schooling but have been singing for most of their lives.

This presents a challenge when music directors work with other theatre artists who don’t speak their language, but want to use that language to help solve a problem. This can range from a stage manager needing to know exactly when to call a cue to a director needing to know how much music they have to transition between scenes. Most often, though, it happens with actors learning their music for a musical. Many actors have been singing and performing for most of their lives, and therefore have developed their own ways to learn music effectively. Often, though, even college-age actors and young professionals struggle to learn their notes in the rehearsal room, and music directors (MDs) struggle to teach them.

Even though these struggles usually don’t result in bad performances once the show starts running, it forces every future MD to deal with the same issues as the last MD and leaves the actor few opportunities to develop new skills. This cycle can sometimes perpetuate itself all the way to Broadway: more than a few notable MT actors are known to not be able to read music despite delivering top-notch performances every night. James Monroe Iglehart, of recent fame for playing the Genie in *Aladdin* on Broadway, is one such actor (Stewart interview).

While teaching music to actors is just one small part of a MD’s job, it is a vital one that has received little attention in the “few print resources” (Marshall 1) that exist on the profession. Although this problem can apply to every level of theatre, it is most relevant to companies using low- to medium-experience¹ actors, as well as schools; in these situations, there is either an understanding of limited experience and knowledge or an expectation that the rehearsal process

¹ Here, I define low-experience as people with fewer than 5 years’ worth of training or experience (e.g. children, some college actors, community theater actors) and medium-experience as people with 5-10 years’ worth of training or experience (e.g. most college actors, some post-grads, etc.).

is part of a larger educational goal, which can be different depending on the school level. Often, teaching music is just another item on the checklist; MDs use whatever methods they can (usually relying heavily on rote learning via the piano) to teach the notes and rhythms before quickly moving to the next item. This approach, often taken out of necessity rather than choice, tends to perpetuate the aforementioned cycle. Since there never seems to be enough time, the actors never get to develop skills that will really aid them in learning the music for the next musical they do.

This thesis aims to investigate how to end that cycle by focusing on the best practices for teaching music to actors in the rehearsal room. Because the overall job of the music director is to support the vision of the story through the music, using effective teaching methods can make an MD better at one aspect of the process which then feeds directly into the final goal. In addition, I hope to continue the process of documenting and defining the profession in order to reduce ambiguity and misunderstanding regarding what a good MD looks like.

Thesis

Though teaching music is a small portion of the rehearsal process, its implications ripple throughout the rest of the production. Therefore, examining the teaching process necessitates looking at the larger picture of rehearsing, as well as the specific duties a music director should be expected to fulfill. This paper aims to answer questions in a two broad categories:

1. **Picture of a Music Director:** What does an MD “look” like? How did the profession come to be, and what is it like now? What training can they be expected to have? What duties should they be fulfilling?
 - a. **Goals:** Should an MD’s goals aim beyond the success of the show? Is it possible (or recommendable) to work on skills that will aid actors beyond the immediate production?
2. **Effective Practices:** Which of their duties are most important and should be considered most carefully? How can an MD do their job really well?
 - a. **Teaching Music:** What factors should an MD take into consideration when deciding what method of teaching music to use? Which factors are most important? Are certain methods always more successful than others?

Specifically, I will focus on four main methods of music teaching: plunking notes alone (the MD plays the line on the piano, the actors sing it back), plunking notes with actors recording (the MD plays through whole lines, actors record the piano and are expected to know it for next rehearsal), sending prerecorded vocal tracks, and sightreading the music (with little to no help from the piano).

Though these questions are complicated and wide-ranging, I argue that the answers are simpler than they first appear to be. While considering factors such as time constraints and

musical ability of the cast are important and impact how different methods are implemented, I argue that they shouldn't ultimately affect the actual method of teaching music. Spending more times on the basics of the music (i.e. notes and rhythms) will lead to more effective learning in the long-term, both for the immediate production and the actors' careers, and teaching skills and knowledge (such as basic theory and solfège) rather than just the notes of the musical is a valuable use of rehearsal time that shouldn't be overlooked.

Though the immediate goal is always to succeed in the rehearsal process in order to put on a stellar show, MDs have a unique opportunity to teach tools to the actors that they can use in every future production. Because of this, I believe an MD should aim to impact actors beyond the immediate production. This investment of time pays not only concrete dividends in the form of time saved for the actors and MD in future rehearsals, but also strengthens the bond formed between artists working on a show together.

This assertion begs the question: what are the bounds of an MD's duties? While it seems noble to try to have an impact on actors beyond the production, the constraints of each show situation might not allow for much beyond the bare minimum. Therefore, I begin by tracing the history of the position of music director to the current day and examining the specific duties and expectations associated with it. The second half focuses in on the process of teaching music: what's done currently, how different MDs view the process, and how new methods can lead to more effective learning with a longer impact.

Part I – What Does a Music Director Look Like?

The History of Music Direction

Music has always been a part of society, and for this reason, music direction has existed in some form all around the world for millennia. From leaders who indicate section changes in African chants to Japanese musicians who are partners in the action of noh and kabuki theatre, there have always been individuals who have had to make and execute musical decisions, especially in relation to drama and theatre. Because of this, there's no set date or time period where the position of music director was formally named or created. To date, there has been no formal examination of the full history of this position across time and cultures. In his book *A View From the Podium*, however, Joseph Church does trace the development of music direction in the Western tradition, starting with Ancient Greek drama.

Choral leaders (called *choregos*) would be the ones to lead the Greek chorus, mostly in chant or recitation on stage (19). In the Middle Ages and Renaissance, traveling theatre and music groups would perform at various towns throughout Europe, led by someone coordinating the selection of materials and performance aspects – the de facto music director. The early Catholic Church, among other religious groups, played a major role in the development of storytelling through theatre and music. However, this is mainly because they first sought to ban or control the artforms, and after seeing how popular they had become, decided to adopt them for themselves as a way to tell stories, especially to those who couldn't read or write. Here, too, someone had to compose, direct, and manage the message of the art.

Continuing into the 18th and 19th centuries, the Church continued to provide gainful employment for music directors (called *Kappelmeister* or *maestro di camera* in Germany and Italy respectively) and the jobs of composer/manager and performer began to separate (21).

Popular music was also slowly becoming a separate genre from church music, and as people no longer had to “do it all,” they were able to specialize on the manager side of things and focus more on the preparation and logistical execution of music rather than the performance of it.

By the 20th century, popular music had exploded with all sorts of genres proliferating and developing in their respective communities (21). This is also when musical theatre as we know it today began to develop in earnest. Many cite *Showboat* in 1927 as the first real American musical, launching a new stylistic tradition (Ewen). But even by the opening of *Oklahoma* in 1943, styles had already started to shift and diversify (Church 40). As musicals became more popular in the Golden Age, the composers alone were no longer enough to manage all of the musical aspects of the production; many other positions, such as musical directors and orchestrators, proliferated as more people tried their hand at Broadway.

Even as late as the 1960s, however, the lines between MD, performer, and musician were still fairly blurry. Ed Linderman, a New York City-based MD and Broadway performer, told the story of how he was originally hired as a rehearsal pianist for the original Broadway production of *Fiddler on the Roof*, but when an actor dropped out, the producers turned to him to fill in the role (Linderman interview). Linderman ascribed the hire to his knowledge of the score and demonstrated performance abilities from other shows, but the episode demonstrates how even at the highest levels of theatre, roles aren't always defined so cleanly and how there is much overlap between the knowledge, skills, and abilities required for different areas even within a single production.

The 1960s marked the end of what some call the “acoustic age” of musical theatre (Suskin 6), as productions such as *Hair* in 1968 broadened what many considered to be musical theatre. This expansion of style also played into the role of the music director becoming more

visible and crucial to productions. Being on the forefront of rock and synthesized music was highly desirable, and as these sounds made their way onto Broadway, even more individuals had the skillsets to come into the profession (Schimmel 16).

By the 1980s, a new behemoth had come onto the scene: the megamusical, which often required more personnel and management than many previous shows (Church 41). These shows, such as *Cats*, *Miss Saigon*, and *Les Miserables*, relied more on spectacle than many musicals had in the past, and because of that, they appealed to a much wider audience and usually spawned national and international tours. This is when the position of music supervisor came about; there needed to be one person who managed the entire music team for a musical if it moved to different countries, and the music supervisor made sure that the musical elements stayed consistent between different casts and locations (Schimmel 31).

Today, the role of music director is still fairly ill-defined, though recent works that attempt to document and clarify the position have been quite successful so far.² Within the past decade, changes in technology, increased collaboration and communication between MDs, and (somewhat) increased visibility have led to many discussions regarding the profession and exactly what it entails. The best example of this is the creation of the Theatre Music Directors Facebook group: this group provides a place where MDs can ask questions, discuss practices, and share resources with one another. These efforts are valuable because they can lead to more effective results in the future; not only does increased clarity provide more consistency for what actors, directors, and other theatre artists expect when working with an MD, but it also allows us to discuss our practices and come up with new and better ways of achieving results.

² These include Church's *A View from the Podium*, Marshall's *A Guide for Music Directors in School, College, and Community Theatre*, and Gilson's *A Guide to Musical Direction in the Amateur Theatre*.

Another challenge regarding expectations and visibility is the lack of a Tony award for music direction or supervision. Though an award for Best Musical Director was presented from 1948 to 1964, it was dropped in 1964 and has not been reinstated since (Schimmel 14). Even in its final year, the individual awarded (Shepard Coleman for *Hello, Dolly!*) had been fired early on in the rehearsal process and another member of the music team had taken over – some speculate that the committee had simply voted for the biggest hit musical of the year (Church 16-17). In 1994, a group of Broadway and Off-Broadway MDs made a presentation to the Tony Awards committee attempting to illustrate the work that they did and the impact they made on the production (Schimmel 15); however, they were unsuccessful. Joseph Church, who was a part of the group presenting, said the committee members “expressed bafflement at a music director’s work, and were unable to remember the criteria by which they had judged the award up until 1964” (18).

This issue is still debated today. A recent thread on the Theatre Music Directors Facebook group found that opinions about whether MDs should receive a Tony award (or any recognition at the ceremony at all) are highly divided, ranging from full award recognition to a simple acknowledgement during the ceremony to no mention whatsoever (Pardo). This discussion brings up some larger themes about the profession as a whole: namely, the lack of understanding that many other theatre artists have about the position and the fact that much of the work of the job is meant to seamlessly fit in with the rest of the show, similar to the work of a stage manager. While I do not believe there should be a Tony award for the position of MD, I do believe some sort of acknowledgement along with the stage managers of each season is a good solution to a complicated problem.

Training

Despite this profession existing formally and informally for decades, there are only a handful of degree programs that focus specifically on training music directors for musical theatre. Part of this is due to the wide range of knowledge, skills, and abilities that are required to be a good MD; when asked directly about what makes a good musical director, phrases like being a “jack of all trades” (Mantai) or possessing “stylistic breadth” (Small) often come up. Casey Reed, a recent graduate of Northwestern, dedicated a whole thesis to the topic of what backgrounds many MDs have: “Ultimately, every path is different and there is no ‘right way’ to begin a career in music direction. High piano and technological skills are assets worth focusing on at the undergraduate level” (Reed 16). This plays into the “impenetrable mystery” that Church describes in the introduction to his book: if we don’t even know how to train a good MD, how can we begin to know what they do?

Part of the “mystery” surrounding the profession is certainly a pride in the complex and difficult work that MDs do. Just like much of the public knows that the job of a rocket scientist is complicated and very important, but might not know the details, many theatre artists recognize that the work of MDs is a critical part of the theatre process, but don't see the job as something they have a hope of understanding. This complexity makes the job valuable (in an economic sense) and allows MDs to do their work without too much interference from backseat directors. This mindset sometimes comes off as arrogance, however, and might prevent curious individuals from inquiring out of fear that their skills (or lack thereof) might be looked down upon. We as MDs know this not to be the case, but this perception could be feeding the cycle of mystery and lack of recognition.

Reed posits that few degree programs for musical direction exist because “the job is a utilitarian, show-specific venture that cannot be taught entirely in a classroom” (5). While it’s true that music directing requires skills that are difficult to lecture on, this line of thinking hasn’t stopped plenty of other majors and degree programs from forming and doing their best to train students to be the best in their field (e.g., education majors student-teaching in schools, internships, etc.). The core skills that many MDs report as valuable on every job include piano proficiency (or another instrument, but piano is most useful), knowledge of music theory, knowledge of MT history, knowledge of popular music, basic teaching skills, and general managerial or “soft” skills (Reed 12-15). Many of these are already present in music programs at many universities. Len Hoyt, a Broadway MD, says the ultimate goal is to “learn to have an opinion about music” (Clement) and be able to execute that opinion on every level.

However, Reed is entirely accurate in saying that there are many skills that cannot be taught in a classroom. Ron Melrose, a Broadway music director, says that MDs rely very much on instinct, which he defines as “experience plus thinking on your feet” (Schimmel 128). While many can improvise their way through a situation, the key here is that previous experience can guide a final decision toward the most effective option. This is something that only repeated “real world” experience can give to a student: David Loud, an apprentice of Paul Gemignani, “cited [the original Broadway production of] *Merrily* as his graduate school” (Reed 15).

In addition, it’s critical for a budding MD to have experience as both an assistant (or part of a team) and as a lone music director (Reed 14). Working as an assistant allows students not only to watch more experienced MDs do their work up close, but also to gain experience with some smaller (but very necessary) tasks: taking notes during a run-through, teaching music to a small group, or sending out information to the cast. Working as a lone MD forces students to

learn to make decisions, both creative and administrative, on their own (and live with the consequences), to multitask using all the skills they had worked on separately, and to interact with actors and the rest of the creative team in a more direct way.

This last point highlights one of the most important skills an MD can possess: working well with others. This skill, not always discussed in the context of the field, is critical for facilitating communication with the creative team and actors as well as future employment – even the most talented pianist or conductor will not find much work in the small world of music directing if they come across as uncollaborative. Kristen Blodgette, former conductor of *Sunset Boulevard* during its most recent revival, gives this advice to aspiring MDs: “Stand steady. Be consistent. Be honest. Have an inner compass of certainty” (Blodgette).

Survey Results – Demographics/Skills

Because much of my thesis relies on current practices and opinion of music directors, I knew I would need data from as many as I could find. I conducted a survey to not only ask questions directly related to my thesis, but also to gather basic demographic information about those who consider themselves MDs.

Degree Type	Percentage (N=215)
Master’s	40
Bachelor’s	30
High School	8
No Degree	12
Other	10

Degree Focus	Percentage (N=215)
Music	66
Musical Theatre	10
Drama	4
Other	20

Music Degree Focus	Percentage (N=125)
Performance	50
Education	15
Conducting	10
Composition	8
Music Direction	2
Other	15

Among 215 usable responses, the mean age was 35.4 years (standard deviation [SD] = 13.0, range = 16-70) with 73% male respondents. These numbers make sense; many MDs are well out of their college years, and the field seems mainly male-dominated from my experience. Table 1 shows the percentages for highest degree earned, while table 2 shows the specific focus of the highest degree earned. Table 3 breaks down the largest category, music, into different concentrations. Most MDs are college educated, and close to 50% have graduate degrees or higher (as many of the “other” answers included PhD’s). However, a total 20% of respondents either never went to college or never finished it. Those who did go to college mostly studied music, though the “other” category included a range of many non-arts-related majors. Among music majors, performance was by far the most popular major, with many other majors (music technology, music business, music therapy, etc.) filling out the “other” category.

These numbers show that, while going to college or majoring in music is not at all necessary to be an MD, it is how about half of all MDs spent their college years. This data is unable to correlate success or confidence in the field with degree type, but I hypothesize that while music majors might have a slight advantage over their non-music or non-college peers, the difference would be small.

In terms of career length, respondents reported being an MD for a mean of 12.8 years (SD=10.6, range=0-51 years). When asked if being a music director was their main job, 45% responded yes, 33% responded no, and 22% responded that it fell somewhere in the middle. Combining this information with the age average, it seems like many MDs get their start in college and are able to continue for a long time; however, less than 50% of respondents have it as their main job. This is probably a combination of the fact that theatre occurs in many contexts and at many levels (ranging from educational to community to professional) and the fact that the

skills an MD possesses are useful for a variety of other positions as well (music teachers, collaborative pianists, conductors, managers, etc.). In addition, compensation can range very widely; professional gigs can pay well, while community gigs can pay next to nothing.

Table 4 shows how MDs rated their piano skill on a scale of 1 (not at all proficient) to 7 (extremely proficient) in four areas: sightreading, improvisation, “faking it” (defined as simplifying a complex part on the fly), and overall technique. Unsurprisingly, “faking” was rated highest on average at 5.9 out of 7. This skill is essential to being an MD for a few reasons: often, the scores sent with the materials of the show are condensed piano-conductor scores with a reduction of the orchestra’s parts in the piano, leading to messy or extremely busy scores. While

Piano Skill	Rating – Mean (SD)
Sightreading	5.3 (1.6)
Improvisation	4.7 (1.7)
“Faking it”	5.9 (1.5)
Technique	5.3 (1.2)

careful study and analysis are useful, making quick decisions about what to play or leave out while in rehearsal is more effective. This also allows the MD to incorporate their personal interpretation into the music and practice making musical decisions that will have implications later on in the rehearsal process.

Although “faking it” is a form of improvisation, the latter category has the lowest average of the four, along with the widest spread. This discrepancy is probably because the way I defined it (creating harmonies and melodies over a give chord structure) is more often seen in a jazz context when soloing or comping, and the specific addition of creating a melody rather than just accompaniment is a separate skill that many MDs don’t get to practice.

Sightreading and overall technique had the same average, but technique had a smaller spread than sightreading. I expected sightreading to have a higher average, mainly because many MDs play piano for auditions for much of their careers and also use their sightreading skills in

the course of “faking it” during a rehearsal. Overall technique makes sense where it is; many MDs are excellent pianists, but rarely have the technical prowess of classically trained collaborative pianists because of the generally lower difficulty of MT music.

MD Attribute	Percentage (N=215)
Easy to Work With	72
Piano Ability	59
Conducting Ability	40
Organization	33
Knowledge of MT Canon	25
Knowledge of Music Theory	23
Knowledge of non-MT Music	21

Finally, respondents were asked to choose three attributes they think most important to being an MD from a list of seven options. Table 5 shows that, as discussed previously, being easy to work with is by far the most important attribute

an MD can possess, even above piano ability. However, hard skills like piano and conducting abilities are next on the list, showing that it’s difficult to be a good MD without at least one of them (although, as we’ve seen before, piano ability has many components to it and a good MD doesn’t need to possess every skill listed previously). The bottom of the list contains the “knowledge” attributes: knowledge of musical theatre, music theory and non-MT music. Though these were the least-chosen options, 20-25% of respondents still picked them; this means that while these skills might not be the most important, many MDs still consider them significant. These skills add significance or context to a rehearsal situation (e.g., using knowledge of the MT canon to explain a reference in a lyric) or make practical matters easier (e.g., revoicing a chord on the fly using knowledge of music theory).

These results begin to paint a more vivid picture of what skills MDs possess and value: music degrees are common but not universal, piano skills vary widely but focus on “faking it”, and some of the most important skills an MD can possess have nothing to do with music. This information can be used in a variety of ways, such as helping to guide young MDs toward what

skills to focus on, or reassuring current MDs that their backgrounds and skillsets (e.g., a non-music major with a mix of piano skills) can still lead to success.

What Does a Music Director Do?

In addition to a survey, I conducted in-depth email interviews with music directors who were willing to share more information.³ The interviews aimed to give context regarding what skills are most important for an MD and how they perceive their duties.

General Job Description

Some MDs offered general advice that can apply to most professional situations:

“First and foremost: be a nice person” (Pool interview)

“Being patient, creative and flexible are the most important parts!” (Shegogue interview)

“The most important job is being efficient in all aspects of the job. Communicating, teaching, problem-solving, rehearsing, planning and conducting.” (Renoni interview)

These non-musical skills nevertheless make an MD much more effective at their job. Pool brings up the recurring theme of the importance of good interpersonal skills – if people don’t want to talk to you, collaboration cannot happen, and the show process grinds to a halt. Shegogue mentions that skills like creativity and flexibility are highly useful, as even the best-planned rehearsal or production meeting can quickly go awry when a new problem arises. Whether the issue is actors struggling to learn notes or production team members misunderstanding a musical problem, creative and flexible MDs will get through the issues faster and with fewer lasting issues. Finally, there has to be a balance of quality and quantity of work for every duty of a music director. Lots of mistakes or not enough high-quality work both work against the fast-paced nature of theatre; therefore, “being efficient in all aspects of the job” (Renoni interview) is extremely valuable.

³ A list of questions can be found in Appendix A.

Many MDs also mentioned the wide range of duties that have to be performed in the course of the show. Under the umbrella of “director,” their duties fall into three categories: designer, manager, and teacher. As a designer, “the Music Director (MD) designs the overall soundscape that helps tell the story” (Marshall 16). In this role, the MD’s job is to think about what the material of the show is trying to convey and how best they can use the given material to express that idea through stylistic choices, instrumentation, and other variables.

Though some MDs make illegal changes to make a production fit a mould (e.g., making large cuts, adding material from outside the show, etc.), there are plenty of small and subtle changes that can affect how an audience perceives the music of a show. While technically any change to the show material is a violation of the agreement signed by the theater, many small changes (e.g., small cuts, adding vamps or intros) are often overlooked due to their innocuous nature. It is the MD’s job to use those changes to communicate their message to the audience effectively.

As a manager, “the music director is the connector” between many departments (Schimmel 124). The MD is in charge of dealing with not only administrative tasks (production meetings, etc.) but also managing any musicians needed for the show. This often includes vetting or auditioning them, scheduling the sitzprobe and other orchestra rehearsals, and working to get them up to speed on the specifics of the production. In addition, the MD is one of the only production staff members (along with the stage manager and their assistants) who continues to be a part of the show once performances begin. In this sense, the MD works to manage the show each night as they ensure all the musical elements happen at the correct time. They also serve as the nexus for many other departments since music deals with almost every major element of the musical: set design, stage management, stage direction/blocking, sound design, and lighting.

These considerations are even more important with a non-traditional pit setup (e.g. on stage, in a separate room, etc.).

Finally, as a teacher, the MD has to teach the music to the cast. This seems like the most straightforward task, but often requires the most preparation and time to successfully execute compared to all the other duties. This is because there are many factors to take into consideration: the size of the cast, the difficulty of the music, coordination with other elements of the show, and, most difficult of all, the cast members' ability to read music. Being able to communicate musical ideas to inexperienced actors is perhaps the biggest challenge that an MD faces in a given rehearsal process, and also the most important:

“My master’s is in Collaborative Piano, so I believe that collaboration is such a high form of art... You can study voice or piano, but to teach it in a way that a student sees how it all works together – that’s really invaluable, because that’s how the real world works.” (Mantai)

“Given that so many of my shows have casts of enormously different talent and knowledge levels, I have to be able to work with all of them and adjust my methods to fit many different people.” (Eschhofen interview)

All of these jobs coalesce to accomplish the ultimate goal of musically directing a show:

“At its core, the music director’s job is to understand how a musical text serves a show’s characters, emotions, and story, and to bring those qualities out in a production’s cast and musicians.” (“What Does a Music Director (Theater) Do”)

“I think the number one most important job of the MD remains (just like the director) making the vision of the show and the show itself mold to the cast you have” (DeMaria interview)

This final goal involves making creative decisions (designer) and considering their impact on all other aspects of the production (manager) while deciding the best way to communicate that vision to those who will execute it (teacher). Each job is integral to being an effective MD; without any one of the three, the rehearsal process becomes essentially impossible.

In the bigger picture, the goal of a music director is to use the work of all the music personnel on the original production of the show to support the vision of the director. An MD cannot work separately from the director, and their tasks consist of more than just playing piano.

Rehearsal Process

In practice, how are these tasks put together? The few books written about music directing cover this topic extensively, but for the purpose of this thesis, there are five main steps involved. Assuming the show is chosen and actors have been cast,⁴ the first job of the MD is the design work: splitting up the ensemble for harmonies, practicing the score to a comfortable level, considering instrumentation choices (including size of the orchestra and possible instrument doublings), and deciding on the location and layout of the pit. All of these decisions have implications beyond the MD and need to be discussed with the appropriate departments. For example, having the pit on stage means talking to the set designer for space, the sound designer for cable layout, and the costume designer for the band's costumes. David Gilson, a music director in the UK, advises to start preparing as early as possible in his *Guide to Music Direction for the Amateur Theatre*: "The role of the MD starts well before the first rehearsal. The cast will be expecting the MD to turn up at rehearsals confident about what they want to achieve musically with a plan of action to achieve it" (10).

Once rehearsals begin, the second step is to focus on being a teacher. Teaching music to the cast not only ensures they'll get their notes and rhythms right, but also begins to establish a connection that the MD can rely on as they start to make higher-level creative choices that might require the actors to be more vulnerable or trusting. There are a variety of tools MDs can use to achieve their desired result (discussed extensively in the following section), but the most important goal is to always work toward the aural image designed in step 1.

Next, as rehearsals progress, the MD will have to adjust their work based on circumstances that arise. Sometimes the director will need more or less time to cover a scene change, so the MD

⁴ The MD should be included on these tasks, but are often not, especially for show selection. For a more in depth look at these processes, see chapter 4 in Marshall's *Strategies for Success in Musical Theatre*.

adds repeats or makes small cuts in the music. Other times, cast members have more trouble with certain harmonies than anticipated or are unavailable to sing due to costume changes or moving set pieces, so the MD has to change the written harmonies in order to accommodate. Though the MD should also have their own goals in mind, their work must always serve the director's vision of the story: "Love what you do, but don't be *in* love with what you do. Don't be precious about anything. If it isn't serving the story, get rid of it" (Tunick qtd in Schimmel 39).

Towards the end of the rehearsal process, the MD starts to work with the pit musicians. Running orchestra rehearsals is usually a sprint compared to the marathon of the show, as there's much less time to rehearse and just as much information to convey. While these rehearsals usually require the MD to be a manager more than a teacher, the use of students in a pit can provide educational opportunities (sometimes at the expense of quality or speed, but not always). The key idea in this phase is to give the musicians as much context as possible regarding the action on stage and what their music is supporting. Playing an extremely beautiful solo line means little to the musician playing it if they don't know what they're underscoring, and giving information helps to inform the musicians how to interpret their parts. The sitzprobe (first rehearsal with actors and orchestra together) can aid greatly to hear how actors interpret their parts and how the timing of dialogue works out, but having the player sit in on a run-through can be even more helpful to them.

Finally, once the performances have started,⁵ the process of "creative repetition" (Church 54) begins. This is where the managerial duties take over entirely; the key idea is to ensure that all the work put into the rehearsal process gets recreated every night. This repetition involves some objective measures (e.g., ensuring cues are on time or playing the correct notes) as well as some

⁵ I skip over the very critical processes of tech and dress rehearsals again because they're outside the scope of the thesis. See chapter 18 in Church for more information.

subjective ones (e.g., conducting effectively to help the musicians play expressively and actors tell the story). Short runs often don't encounter many problems in this stage, but longer runs (~4 weeks or more) make the participants susceptible to boredom, fatigue, or strong impulses to make changes. Finding new, small goals to work on for every performance can help stave off these feelings and keep the show sounding fresh.

The entire process can take anywhere from a day (in very extreme cases) to many months (often the norm in primary and secondary schools), but often falls between 3 and 8 weeks. Some more ambitious companies put up whole shows in 1-2 weeks of rehearsal, such as the Weathervane Theatre in Whitefield, NH, where I worked in the summer of 2016. This company puts up 7 full-length shows in 8 weeks of rehearsal every summer, requiring the highest level of diligence from the music team and performers. In these cases, a short cast rehearsal period means an even shorter period for the orchestra, leading to some pits meeting for just a few hours before a sitzprobe. In a 2017 production of *Mamma Mia!* at the Hollywood Bowl in Los Angeles, MD David Holcenberg had just 4 hours to rehearse with the band before moving to rehearsals with the cast (Kaan). Despite this, he describes the events as "one of my most favorite days."

Time is one of the biggest factors that MDs should take into account when planning a rehearsal process, as no one enjoys having to sacrifice quality for quantity of material. Building in review time and benchmarks of progress (e.g. all songs learned by the end of week 2) are essential to ensure the material sticks and to keep the schedule flexible should things fall behind or get ahead.

Conclusion

This section has given a general overview for what ought to be expected of an MD. In addition to being kind, organized, and easy to work with, their musical talents and preparation should never come into question and their process should always be in service to their vision of the music's story (which, in turn, services the director's overall vision). Though they come from many different backgrounds and areas of study, MDs should always be prepared to explain musical ideas in a way that anyone can understand and, specifically for actors, in a way that aids them in their performance.

But what's the best way to do that? Especially when working with actors who don't read music, there are many challenges that an MD needs to consider before they sit behind the piano and begin to teach the music to the cast. What are these challenges, and which ones are the most important for an MD to consider? The following section explores different answers to these questions.

Part II – How Can a Music Director Be Effective?

“You need to ensure the cast understand the story they are trying to tell within the song.” (Gilson 28)

“As the instructor, your job is to create the environment that is most conducive to learning.” (Marshall 5)

Something that can sometimes be lost in the thick of playing a vocal line for the tenth time for a struggling cast member is that telling an effective story should always be the ultimate goal of a musical. Often times, music directors worry that they won't be able to get there, whether due to time, talent, or unforeseen circumstances. The pressure of “the show must go on” feels quite heavy when opening night is a week away and wrong notes still abound in every group number. Some MDs return to the basics; they make sure that, at the very least, all the notes will be correct and the show will sound pleasant. Others throw out the basics and instead focus on hiding imperfections with big smiles and lots of confidence.

While it's easy to say that these situations usually occur by chance or bad circumstances (which, to be fair, is sometimes true), they often arise because the MD failed to correctly assess the situation before coming up with a plan for the rehearsal process. It is the responsibility of the MD to “create the environment that is most conducive to learning” (Gilson 28) and then “ensure the cast understand the story they are trying to tell within the song” (Marshall 5). When these two goals are met, even a musically disastrous production will leave the cast with two things: increased confidence in their ability to learn music and satisfaction knowing they told the best story they could.

How can an MD do this? One of the main ways is using an effective strategy for teaching music; because learning music is how many rehearsal processes begin, finding a method that both empowers actors in their own learning process and increases overall musical comprehension is the ideal solution. In addition, an MD's goal should not just be limited to the rehearsal process.

A truly transcendent MD should aim to impact actors' future rehearsal processes, just as a good teacher hopes to impact students beyond their time together in the classroom.

Survey Results – Teaching Methods/Actors

Teaching Methods

In addition to gathering demographic and descriptive data on music directors, I asked respondents their opinions on the most effective teaching methods and the factors they consider to make that decision. I also surveyed actors to find out which methods they prefer, as well as how confident they are in their musical abilities. Based on research, interviews, and personal experience, I narrowed down the options to four main methods of teaching music: plunking alone (i.e. learning by rote), plunking and having the cast record each line, preparing vocal tracks before rehearsal and sending them out, and relying on sightreading.

Teaching Method	Percentage (N=215)
Combination	57
Plunking and recording	25
Sightreading	6
Plunking alone	4
Vocal tracks	4
Other	4

Teaching Method	Percentage (N=215)
Combination	58
Plunking and recording	20
Vocal tracks	9
Plunking alone	6
Sightreading	5

When asked to select the method used most often, respondents overwhelmingly chose a combination of approaches. This option is something I hadn't considered in my initial research, but decided to add as an answer at the last minute. Table 6 shows that 57% most often use a combination, 25% usually use plunking with recording, and less than 10% of MDs use the other methods often. Using a combination of techniques is reasonable because of the many factors that can affect learning speed.

Table 7 shows the method that MDs think is most effective (i.e., which method helps the cast learn the music most completely). These results generally align with the methods used most often; a notable exception is the use of vocal tracks, which more than doubled, bringing its total to 9%. Again, a combination of approaches makes sense, as it means using whatever method is best for a given set of circumstances. However, I expected more MDs to select vocal tracks as more effective than plunking and recording, as vocal tracks allow the cast to start practicing as soon as possible with a clean recording. While it's possible that the cast won't utilize the track well enough, the same could be said for the recordings made during rehearsals using plunking and recording.

The final question of the survey asked respondents to pick two of the most important factors to take into consideration when choosing a method of teaching music. Table 8 shows that

Table 8 – Factors Affecting Decision	
Factor	Percentage (N=215)
Music abilities of cast	86
Time constraints	53
Difficulty of score	46
Size of cast	7

MDs view the musical abilities of the cast as essential to making a decision regarding how to teach the music. Time constraints and score difficulty are also very important, while the size of the cast doesn't matter nearly as much to many MDs. So, in order to make an effective rehearsal plan, the average MD needs to know how much time they have, how hard the score is, and how musically literate the cast is (all of which should be easily accessible information).

In addition to this survey, I was interested in whether certain factors correlated with one another or whether a statistical relationship could be found. In particular, I wanted to know whether using a certain teaching method often correlated with experience – did experienced MDs tend to use one method more than another? Using a chi-squared test of independence, I determined that there was no relationship present between these variables ($\chi^2(16)=21.96, p>0.05$).

Actors' Perspective

I also conducted a survey of actors to gather information about their confidence in musical abilities and preference of music learning style. Among 108 usable responses, the mean age was 25.6 (SD=11, range=16-78), and the respondents were 62% female. While the gender balance is close to representative in my experience, the mean age is skewed low because of the use of convenience sampling – I relied mostly on my own social network to gather responses, meaning my data is more representative of actors close to my age.

Concentration	Percentage (N=108)
Acting/performance	28
Musical theatre	23
Music	18
Drama/theatre	15
Other	16

91% of respondents have earned or are currently in a degree-granting program, with 33% BAs, 36% BFAs, and 30% other degrees (including BM, MFA, PhD, etc.). Table 9 shows the spread of degree concentrations. This fairly even spread is

representative of the many paths that actors take in college, but there is little data to compare against to make a true evaluation.⁶ In terms of union representation, 79% are non-union, 10% are members of the Actors Equity Association (AEA), and 11% are members of the Equity Membership Candidates (EMC) program. Again, with no reliable data to compare it to, it's difficult to assess whether the sample is skewed toward one category.

When asked to rate their level of comfort with reading music on a 1-7 scale (7=very comfortable), the mean was 5.4 (SD=1.7). When asked how often they had trouble reading music in a rehearsal setting (1=never), the mean was 2.6 (SD=1.4). These results indicate that actors are fairly confident in their musical abilities and occasionally have troubles in the rehearsal room. I

⁶ The Bureau of Labor Statistics reports 43,470 actors in May of 2017 across the whole country (BLS). This number is wildly incorrect, as AEA reported 50,920 members in 2017 (AEA), approximately 43,800 of which are actors (Frank). Non-union actors far outnumber AEA actors, showing the inaccuracy of the data.

expected a higher rating for how often actors have trouble, but it's possible that social desirability bias skewed the answers lower than the true value; no one likes admitting faults.

Method	Percentage (N=108)
Combination	43
Sightreading	22
Plunking alone	12
Plunking and recording	11
Vocal tracks	10

Method	Percentage (N=108)
Combination	52
Plunking alone	20
Vocal tracks	12
Plunking and recording	10
Sightreading	4

Tables 10 and 11 show actors' preferences for favorite way to learn music, as well as what they think is most effective. While a combination of approaches is still by far the most popular answer, the order of the other methods varies greatly between the tables. Though close to 25% of respondents chose sightreading as their favorite way to learn music, only 4% rated it as the most effective. This preference could be because actors doubt the musical abilities of their castmates (meaning they personally enjoy it, but don't think it works for everyone), or because they enjoy sightreading itself, even if they're not very good at it or can't learn the music from doing it. Plunking alone was chosen as the most effective method besides combinations.

These results greatly surprise me and warrant further investigation. Future studies could examine reasons behind each of these choices (e.g., why some actors like plunking but don't think it's effective) and, specifically for the combinations, investigate what circumstances lead actors to prefer one method within a mix. Though it would be difficult, a truly valuable contribution would involve creating an experiment or quasi-experiment in order to truly test the effectiveness of different methods of learning music.

Finally, when respondents were asked how they would learn a new piece of music with no available recordings, 51% would teach themselves, 32% would ask a friend for help, and 15%

would ask the company/team for a vocal track. In addition, table 12 shows what instruments (if any) the respondents are able to play. These results are slightly worrisome – only half of actors

Instrument	Percentage (N=108)
Piano	49
None	38
Guitar	15
Woodwind	11
Brass	8
Other	10

feel comfortable learning new music on their own, and nearly 40% of actors don't play any instrument. While it's encouraging that half of respondents play the piano and a few play multiple instruments, these results show that many actors are functionally "illiterate" in music, as they're unable to read music well enough to

play an instrument or teach vocal music to themselves. Even though they may be able to understand and execute quality singing, they need to rely on others to communicate what's on the page to them. This discrepancy underscores one of the key issues for MDs in the rehearsal room – finding the best way to communicate with actors who don't know how to read what's in front of them. This issue will be discussed in depth in the following section regarding methods for teaching music.

In terms of analysis, I wanted to find out whether degree concentration or union status had any relation to confidence in musical abilities or frequency of issues with learning music. Using an ANOVA with post-hoc contrasts, I determined that not all majors were equally confident in music ability ($F(106)=10.51, p<0.01$) or had the same amount of trouble in the rehearsal room ($F(106)=4.25, p<0.01$). Music majors specifically had more confidence ($t(105)=4.77, p<0.01$) and fewer troubles ($t(105)=3.62, p<0.01$) than other majors. Union affiliation had no effect on either variable ($F(106)=0.97, p>0.1$; $F(106)=1.23, p>0.1$).

Music Director Interviews

While I did aim to collect a variety of information from my email interviews with music directors, my main goal was to learn the context surrounding an MD's choice to use a certain teaching method, including what factors they took into consideration and whether they changed their methods depending on whether the actors they work with can read music or not. The ultimate goal is to determine a model of rehearsal practices that allows actors to learn the music both quickly and effectively while also strengthening their skills for future productions.

General

"I prefer [modeling] singing because I can demonstrate diction, dialect, tone quality, vibrato, etc. all at the same time. For many of the actors I work with, I have to do some instruction on how to sing, so demonstrating is the best way to do this" (Guerin interview)

"When I am teaching parts, I like to work mostly a cappella, until maybe we've got a whole section or song worked out. This is so I can concentrate on listening instead of playing, so I can hear the voices, and so the singers learn to listen to each other and hear the harmonies. When I add the piano in for the last couple of times, it is easier for them." (Guerin interview)

"With big ensemble numbers, I often like to start at the end of the song and work backwards, so that the cast gets the most practice on the ending" (Guerin interview)

All of these quotes come from Melanie Guerin, an MD and professor at University of Hartford, and they all deal with strategies that can be used regardless of teaching style. She advocates for using her own voice whenever possible to model what she wants. Whether illustrating basic vocal technique to a young singer or demonstrating a desired phrasing to a more experienced one, the voice is much more efficient in communicating musical information than the piano. This technique can also be used regardless of the MD's vocal experience; even an MD who is an untrained singer is enough of a musician to communicate their music ideas. This practice relates to rehearsing a cappella, especially early on in the process: "This is so I can

concentrate on listening instead of playing, so I can hear the voices, and so the singers learn to listen to each other and hear the harmonies” (Guerin interview).

This technique highlights one large issue that results from relying too much on the piano when teaching music: the actors become accustomed to hearing the piano and internalize singing with that specific sound rather than with other vocal parts. Therefore, when that context is removed (for example, when switching to a choreography rehearsal that uses a track from a cast recording), the actors are much less confident in their voices and struggle to add additional elements. Working a cappella and modeling with the voice gets rid of the crutch of the piano early on and forces the actors to listen to each other to lock in, creating a more unified sound and tighter harmonies.

Finally, Guerin suggests rehearsing the end of big ensemble numbers first rather than the beginning. This practice has both concrete and psychological implications: as Guerin says, it allows the cast to rehearse the ending many times, ensuring it will be very strong by the end of the rehearsal. Psychologically, this allows the actors to access the natural reinforcement of reaching the end of the piece, encouraging the behavior of rehearsing the song again. This is similar to the process of backward chaining in behavior modification (Meadows).

Plunking Alone

“Generally I’ll go through harmonic parts by plunking out the notes and having them sing back to me. Phrases at a time. Then have them all together. Once the general structure of the piece is taught, then I’ll go back and fine tune dynamics and articulations.” (DeMaria interview)

“I almost always have an ensemble who cannot entirely read music. I usually teach one part at a time by plunking notes... In this method, those who can read music often act as anchors for those who can’t” (Eschhofen interview)

Two MDs, Matthew DeMaria and Jason Eschhofen, often use the method of plunking alone, especially for ensembles with low music literacy. DeMaria uses plunking as a layering

tool, starting with teaching the notes and “general structure” before moving on to finer points like articulation and dynamics. He also layers one voice at a time as the actors learn their phrases; they all sing together before moving on to the next section. This is perhaps the most common method I’ve seen and personally used while music directing. While it does allow non-readers to be at the same level as actors who do read music, plunking alone doesn’t build any musical skills other than rote learning, and it leaves other voice sections silent while the MD is plunking through the parts of each section.

Sightreading Alone

“As a general rule of thumb, I do NOT plunk out notes at first – I believe strongly in the importance of sight reading. While actors are not known for strong sight reading skills, many of them can do it better than they might give themselves credit for. Plunking out notes, therefore, becomes a waste of time, unless it is absolutely needed (unfamiliar show, awkward harmonies, etc).” (Pool interview)

“I don't slow my rehearsal process down just to accommodate those who don't read.” (Pool interview)

Matthew Pool advocates for moving away from plunking and going straight into sightreading, regardless of musical literacy. He also believes that many actors can sightread better than they give themselves credit for – and I wholeheartedly agree. Because many actors have listened to music all their lives and many have consumed cast recordings specifically from the past two decades, the harmonic structures that are present in much of musical theatre writing (both vocally and instrumentally) are already in their ears. Even if they can’t figure out the specifics on the first try, many actors have little trouble once they realize they’ve heard something similar before.

Helping actors hear music before they sing is one of the best ways to teach music, but also one of the most difficult. David Fryling, a choral professor at Hofstra University, believes that the key to getting an ensemble to sing the right notes is to give them enough context to

audiate what they have to sing next before they sing it (Fryling interview). Giving context could be establishing a key center, demonstrating harmonic movement via the piano, or using tools like solfège to find intervallic relationships in the moment based on major and minor key centers (from which MT writing rarely strays).⁷ While these tools seem reserved for those studying music professionally, they can easily be utilized and taught well by MDs. Rather than “bringing down” the level of comprehension in order to accommodate non-readers by plunking notes, it’s more effective to “bring up” the level of comprehension via sightreading.

Combination

“I think of teaching methods as a bag of tricks. Not every trick works for every song, or for every show. And, everyone learns a little differently, so when I'm working one-on-one with an actor, I frequently ask what they might prefer.” (Pool Interview)

“With my high school actors, a good mixture of 'plunking' and sight-reading works well. With complex ensemble numbers I will make a part-specific recording and send it ahead of time to help make the initial rehearsal more efficient. After the 'notes' are out of the way we can get into making it sound right.” (Renoni interview)

“I am very capable of switching up my method quickly to suit the learning style I am being faced with. I don't really like to say I have a preference or favorite "method", as that tends to limit what I need to do. If you try to force someone to do it only your way, you either get pushback or not the desired performance. I change to suit the needs of the cast.” (Meyer interview)

Above sightreading alone, Pool advocates for using whatever method works best for the actor (interview). This approach works well during solo or small group sessions; an MD can tailor their approach to the actor(s) in front of them. In larger groups, though, this becomes harder, in which case David Renoni advises using a mixture of sightreading, plunking, and vocal tracks (interview). Though his experience is limited to high school productions, this combination of methods is a safe bet for almost any group because it helps learners of every level and gives the actors ready-made tools to practice away from the rehearsal room.

⁷ Solfège is a system of syllables that correspond to the different degrees of a scale (do=1, re=2, etc.). Made famous by the song from *The Sound of Music*, this system is used when learning a new piece of music to aid in audiating the piece before it is sung.

JP Meyer goes as far to say that picking a preferred method “tends to limit what [he] need[s] to do” (interview). Rather than using one method, getting feedback from the cast before choosing how to teach the music is better. While I agree that meeting the needs of the actors is important, I believe it’s more important to help the actors build new skills and challenge them to internalize the music as much as possible in order to create the best sound (and therefore tell the best story). Though this is an idealized vision, the job of the MD is to get the cast to this point despite all of the constraints present in the rehearsal process.

Learning Style (Readers vs. Nonreaders)

“It’s helpful to ask the singers individually how they best learn, and go from there.” (Shegogue interview)

“I often will teach basic music reading to singers who don’t read... just generally how to follow notes up and down on the staff, recognize duration and phrasing by following the lyrics, fermatas and slurs... that kind of stuff.”
(Shegogue interview)

“I’ve had great readers who get too wedded to perfecting the written rhythm and are not be able to explore and interpret the piece. And I’ve had people who can’t read a note know their song cold before they walk into the first rehearsal and be willing to play around with the delivery.” (Shegogue interview)

“The biggest factor [in choosing a music teaching method] is the musicianship of the singers. If they can read, it helps the process greatly. If not, I have to compensate” (Eschhofen interview)

“I sincerely wish I could just have actors who can all read music and play piano well enough to plunk out their own parts. I honestly think any professional performer should strive to learn at least that much musicality. I see it as a necessary skill for this career, the same way a doctor needs to know a significant amount about the anatomy of the body” (Eschhofen interview)

“I don’t really take into consideration if anyone reads or not; I help them make sense of the typography and everyone records anyway.” (Baker interview)

“I generally approach both [readers and non-readers] as if they don’t read music.” (DeMaria interview)

These quotes illustrate one of the biggest divides of MD opinions so far: whether or not to take music literacy into account when deciding how to teach music. Some MDs (e.g., Marci Shegogue and Jason Eschhofen) believe an actor’s level of musicianship should change the MD’s approach, while others (e.g., Matthew DeMaria and Marcus Baker) believe it makes no difference. Similar to JP Meyer, those in the former group think individualized approaches are

more useful because MDs sometimes have to “compensate” for a lack of reading skill through either more piano (i.e., more rote learning) or more education (e.g., “I often will teach basic music reading to singers who don’t read” [Shegogue interview]). Those in the latter group believe that the MD’s methods are similar enough regardless of reading level that making a distinction is not necessary, and that “everyone records anyway” (Baker interview).

While these two views seem opposing, there’s certainly some common ground between them. Both groups believe that an MD’s job involves teaching basic music literacy in addition to the notes, meaning non-literate actors learn those skills in both cases. There can also be a danger in relying too much on musically literate actors: Shegogue shares stories of musically literate actors being “too wedded” to getting the music perfect in contrast to non-readers who already have the basics down by day one of rehearsal and are ready to experiment. These instances are rare, however, and in general, readers are flexible musicians. I also think the best approach depends on whether the MD is working with an ensemble or an individual. For an ensemble, music literacy can be more difficult to incorporate because the MD might not have time to differentiate instruction. For individuals, the MD has more flexibility in learning about their style and what tools the MD can use to help this actor learn their notes efficiently.

Finally, on a related note, Eschhofen believes that reading music is a “necessary skill” (interview) for the career of an MT actor and wishes that all actors could read music and play piano enough to plunk out their own parts. Whether this skill should be a requirement or not is less important than understanding how this could make an MD’s job easier. In many rehearsal processes, MDs spend far too much time for their liking on teaching notes and far too little time on musical shaping and fine-tuning. Because the notes are necessary to make the rest of the music happen, they need to be in place before moving on to higher-level concepts. If actors were

able to learn the notes faster or entirely on their own (similar to how many opera rehearsal processes work), MDs would have much more freedom to implement their musical design and play with different ways to support the show's story with the music.

TheoryWorks

"I fundamentally believe that singers learn theory different than instrumentalists do." (Stewart interview)

"My ultimate idea is going slow to go fast." (Stewart interview)

One of the issues with asking actors to learn music theory on their own, however, is that many resources are geared towards conservatory students or instrumentalists. While there is plenty of overlap between those topics and the topics relevant to actors, many performers are too busy or don't have the funds to dedicate extensive time or money to resources that would waste their time. In addition, because singers' instruments are internal and qualities like pitch are much more relative, some find traditional theory classes difficult to relate to.

Amy Stewart, an NYC-based vocal coach and performer, aimed to address this problem by developing an online platform that teaches music theory specifically to MT actors. The course, called TheoryWorks, is designed to give actors the skills needed to learn music autonomously and become more comfortable with learning music while in the rehearsal room (Stewart interview). In the course, Stewart cuts out topics not as relevant to MT actors (such as musical structures and high-level harmonic analysis) and emphasizes "going slow to go fast" – focusing on one element at a time rather than trying to learn many at once (interview). She believes that actors who invest in learning theory early on will save themselves time and money by not having to hire coaches or accompanists just to record a vocal line or teach them harmonies.

Rehearsal Techniques

Although asking actors to do more musical work on their own is certainly a good goal to work towards, it doesn't address the job of music directing itself. Instead, it's better to ask: what can an MD do in or out of the rehearsal room in order to establish an "environment that is most conducive to learning" (Marshall 5)? What methods should they employ in order to do their job most effectively?

The key problem is balancing quality versus quantity; using tools that will help the process go faster versus ones that teach the notes more effectively. As discussed in the interviews, there is a wide range of opinions about the 'best' method to teach notes and rhythms to the cast. This section will put those differences in context and examine how the early parts of learning music (learning notes and rhythms) are so crucial to the rest of the rehearsal process.

Preparation

Before rehearsals even begin, it's crucial for the MD to do their due diligence to prepare their own show materials (often a piano-conductor or piano-vocal score) and those of the cast. This includes reconciling printing errors as well as ensuring song numbers line up between the books. The MD also needs to examine the harmonies for the show: will the cast be able to execute all of them, or will there need to be any simplification? For larger casts or complex shows, it can be useful to create a vocal plot, which specifies who sings in what song as well as how much – just a few lines versus an extended solo, for instance (Gilson 10; Marshall 56). In addition, it's important to assess the format of the harmonies. Some scores split up harmonies into a traditional 4 to 8 part split on 2 or 4 staves, while others (particularly contemporary shows) put harmonies on just one staff in the treble clef, giving the MD more freedom to revoice it if

necessary (Marshall 57). For particularly complicated or badly notated songs, it can be useful to use Finale or another music notation software to renotate a song in order to make part divisions clearer.

An MD should also figure out how they want actors to use recording devices in the room and announce it to the cast early on in the process (Church 211). These devices should be incorporated smoothly into the learning process, and rehearsals shouldn't frequently stop in order to accommodate people wanting to record parts over and over again. All of these tools aim to streamline the process of teaching the notes to the actor.

There are a variety of tools that MDs can use with actors to help make the music-learning process as effective and efficient as possible before singing begins. MDs should decide on a system of symbols used to mark music and instruct the cast on what the symbols mean (Marshall 63). Many common musical markings (dynamics, crescendos, breath marks, etc.) are probably known even to the musically illiterate, but other important markings (vowel colorings, articulations, etc.) aren't used as often. IPA in particular is a great tool for singers of all types, but can be difficult to teach to actors who are unfamiliar with it.⁸ However, if the MD has enough time, it's well worth incorporating some IPA into the rehearsal process – that's a skill that actors can use for the rest of their careers.

MDs should also order the learning process to start with the most complex pieces of the show and work backwards to the simplest pieces (Marshall 85). This can be used in conjunction with the strategy of starting at the end of a piece rather than the beginning. Though combining these strategies means it will be a while before the cast will sing the songs in show order, it

⁸ IPA, or the International Phonetic Alphabet, is a series of symbols used to notate spoken language. It is useful to singers for many reasons, but its most fruitful use in an ensemble rehearsal context is to unify group vowels.

prevents actors from getting complacent about always starting at the same spots. In addition, this framework dedicates the most time to the spots that will need to be rehearsed the most.

Other Considerations

Another tool often utilized during the rehearsal process is having the actors listen to cast recordings. Though they can be useful to give everyone an idea of how the final product might sound, I find that they often instill one version of a song in the actors' heads. This makes it difficult for an MD to teach their own interpretation to the actors. Some MDs advocate banning them altogether and ask the cast to stop listening to any before the rehearsal period starts, while others ask actors to listen to one specific version that they want to emulate most. When actors have trouble getting a certain version of a song out of their heads, MD Kerry Prep asks them to go home and listen to at least five different versions of the song before coming back to rehearsal (interview). This trick serves the dual purposes of preventing an actor from copying other performances while also exposing them to new artists.

On the use of warmups, a recent thread in the Theatre Music Directors Facebook group showed just how varied the opinions are regarding the purpose, use, and execution of vocal warmups during the rehearsal process (Lindsey). Opinions range from seeing them as a waste of time (especially for professionals), to using them as a focusing exercise, to only using them during and after tech week, to using them to teach concepts like solfège or introduce difficult harmonic ideas found in the music to be learned for that rehearsal.

I believe the main factors in choosing do warmups or not (as well as their purpose) depends mainly on age, experience, and time restrictions. For younger actors, warmups can be a great focusing tool and can also be used to encourage good vocal technique before moving on to

a lengthy singing rehearsal. For any age, they can be a tool used to introduce or practice diction, solfège, or difficult harmonic ideas. They also can be used for balance and listening practice: once you get the group listening to one another, it's much easier for them to learn harmonies together. All of these decisions depend on how much time is available, but any of these practices can be done in just a few minutes at the start of every rehearsal.

A New Model of Rehearsal Hierarchy

In terms of teaching the notes, I believe there are many improvements that music directors can make to their current practices. Many MDs use some sort of 'base model,' meaning techniques that will work for everyone in almost every show situation. This model is described best by Matthew DeMaria: "Generally I'll go through harmonic parts by plunking out the notes and having them sing back to me. Phrases at a time. Then have them all together" (interview). This is how I have run (and sometimes still run) my own music rehearsals and how many of the MDs I've worked under have run their rehearsals. While the data from the surveys show that the most common approach is a combination of methods, my experience shows that many rehearsal processes are very plunking-heavy.

The issue with this model is that it tries to teach too many things at once and is usually quite slow; for harmonic splits of more than four parts, some sections can be sitting for three to five minutes without singing. Plunking teaches too many things at once because it incorporates the words, rhythms, and notes into a single run-through, which can present issues later on if different sections struggle with different issues. Additionally, this model doesn't let actors use their musical intuitions at all; it relies mostly on rote learning and leads actors to constantly be listening for the piano rather than listening to how their part fits in with the other sections.

Although many of the vocal parts in musicals are not entirely difficult, there are certainly more efficient and effective ways for the actors to learn their parts.

What are some ways to improve this model? One simple improvement is to rely less on the piano and more on vocal modeling, as Guerin suggested in her interview. Even early on, the voice can communicate so much more information than the piano can, and it allows actors to hear how the MD wants the final product to sound. Though not every MD is a trained singer, the issue is less about the ‘quality’ of the voice and more about the information it’s trying to communicate. Most MDs have enough of a voice to get across what they would like to hear. In addition, working a cappella (especially when running larger sections of music) can be very useful for the actors (Church 209). As Guerin mentioned, it allows the MD to listen more effectively and forces the actors to listen to each other rather than the accompaniment for support.

These tools can all fit into a useful framework that is used when teaching lots of new material: a “whole-part-whole” approach (Marshall 127). This model involves exposing the actors to the entirety of what they’ll be learning, then breaking it down into easily digestible pieces, and then putting the pieces together again to recreate the whole. This can work with songs (stumbling through a whole song before going back and fixing smaller parts, for example), but also just with phrases (singing through a whole phrase before fixing the pieces).

The New Model

The most important tool of all is to use some sort of hierarchy of learning to build up actors’ knowledge of the music, similar to Bloomer’s taxonomy in education. This means that the bottom parts of the hierarchy have to be solid before moving on to the more complex steps. Church recommends starting with pitches and rhythms separately before bringing them together

and adding the words (211). Marshall's model recommends going in this order: 1) quality of tone, 2) meter, tonality, rhythm, and pitch, 3) articulation and style, 4) balance and blend, and 5) interpretation and expression (143). Finally, Fryling uses a 'rehearsal pyramid' to show the hierarchy. His order is 1) pitches and rhythms (centered around the pulse of the piece), 2) articulation and diction, leading to timbre, 3) balancing sections in dynamics and intonation, 4) phrasing leading to expressiveness, and 5) getting to the emotional truth of the song ("Three Steps to a Perfect Rehearsal").

These models are already very good, especially in a purely musical context. However, because musical theatre has so many other elements beside the music, it's essential to incorporate the addition of extra-musical items into the rehearsal hierarchy. I propose my own model for a hierarchy: 1) notes and rhythms, 2) the text and its interpretation, 3) style (articulation, diction, phrasing, and dynamics), 4) theatrical requirements (blocking, dancing, etc.), and 5) acting/storytelling – the integration of all previous steps.

Notes and Rhythms

The first priority should always be the perfect execution of notes and rhythms, and the difficulty of this step varies quite widely between shows. This is where I feel the rehearsal process often falls short; many MDs (myself included) often fail to ensure that the actors have truly internalized their notes and rhythms before rushing to add other elements. If the music is not solid, the rest of the hierarchy is invariably affected, even if only for a short period. Some ways to combat this potential issue include separating notes from the rhythms: MDs can have the actors clap the rhythms before singing them on a neutral syllable, or begin by singing the notes on a neutral syllable out of rhythm. While it's not always necessary to do this for simpler music,

many rhythms (especially in contemporary musical theatre) rely heavily on syncopation. They usually make sense once the actor ‘feels’ them, but often look daunting on the page.

Sightreading is also a very powerful tool in these situations. While the other methods can communicate information about pitches and rhythms by rote, sightreading forces the actor to think about the next pitch before they sing it and helps them to internalize it more quickly. As Matthew Pool said, many actors are better at sightreading than they believe, and I think this is because the actors have already heard the harmonic and rhythmic structures in much of musical theatre writing so many times in other contexts. Therefore, sightreading is really just a matter of using previous knowledge to make an educated guess about what comes next.

Solfège is also an extremely fruitful tool that is rarely incorporated into a musical theatre rehearsal (despite every actor knowing the song from *The Sound of Music*). Though it does take time to incorporate and relies on knowledge of key centers, solfège can be used by actors of all levels of musical knowledge as it is both a text-based tool and an aural one. Those who can read music can use this method to associate intervals on the page with solfège syllables (e.g., re to la is a perfect 5th), while those who can’t read can still use it to give names to intervallic jumps that they hear in the course of the piece (e.g., “this jump is sol to re”). Solfège helps actors to imagine how future pitches will sound and gives names to pitches they already know (in a given key context). It is also a tool that can help actors in future rehearsal processes.

Text

Text is important in all vocal music, but it’s particularly important for MT music because the words are the main vehicle for communicating the story to the audience. While some sections may just involve background syllables (ooo’s or ahh’s), the ensemble is often singing text that

matters just as much as the solo line, and being able to execute it metrically, syllabically, and with correct inflection is essential. A performance of “A Little Priest” from *Sweeney Todd* would be quite a drag, for example, if the actors didn’t do their work to understand the text and all its intricacies. Understanding the text before thinking about style is important because the text can inform the stylistic choices an actor or MD might make. Tools such as IPA and dialect coaching can also assist actors in roles that require accents or foreign languages.

Style

This step encompasses quite a lot of musical material. It combines steps 3 and 4 of Marshall’s model and levels 2 to 4 of Fryling’s pyramid. Style has the most variation between shows among any of the other levels of the hierarchy; while cast members in both *Dreamgirls* and *Into the Woods* might employ similar strategies to get down the notes, rhythms, and text, their stylistic interpretations are completely different from one another. This category encompasses ideas like articulation (how the notes are sung), diction (how the words are spoken), and phrasing (how the previous two ideas are put together in longer chunks). Getting to this level requires a solid grasp of both of the previous steps – it would be fairly difficult for an actor to start refining their style before they even know the words they’re singing.

Theatrical Elements

This category is usually unique to musical theatre. This level adds in everything the actor does on stage in addition to singing, including blocking, dancing, or costume changes. Sometimes these elements interfere with the physical act of singing (e.g. dancing, changing costumes, etc.), but often they support and add meaning to the music. All of the previous levels

are essential here because the actors need to master them before they can effectively add these other elements. When I was still a performer, I fondly remember the struggles of trying to remember all of the words to “You Can’t Stop the Beat” while attempting to add in the choreography. The more work actors put in on previous levels (and the more effectively MDs teach them), the easier adding these elements will become.

This stage is also critical because some of these elements are more important than the music with respect to the action on stage. While the whole point of a musical is for characters to share their emotional journeys through song, elements like big production numbers or an extremely impressive costume change will grab the audience’s attention more than the music. Therefore, it’s very important for the actor to be solid on all of the earlier steps in order to not distract from the stage action.

Acting

Finally, actors have to put everything together. The top of my hierarchy involves using all of the previous elements in order to tell a story. The actor can draw on different elements in different moments as an acting tool, and this requires mastery of all of the previous elements to do effectively. An amateur actor can only tell so much of a story if they seem to be struggling to remember or understand the words, but an experienced actor can utilize every step of the hierarchy in order to make their acting as powerful as possible.

Sometimes, actors try to zoom to the top of the pyramid without doing the work necessary to get there. This is the actor’s version of “faking it”; they cover up mistakes in pitches or words with clear intentions or a big smile. While this can be successful, professionals can usually separate the genuine from the artificial. That being said, strength in this area can make up

for deficits in others. The role of Henry Higgins in *My Fair Lady* is an example of a role meant for a strong actor who isn't necessarily a trained singer, and so any lapses in pitch accuracy are forgiven because of the riveting nature of the character.

All of these elements are tools that MDs can draw on in order to help actors tell the most powerful story through the music. This framework provides a roadmap for how to get there and offers some methods for doing so; it is up to the MD to make their own decisions. The most important benchmark of effectiveness for an MD is if they're able to get the cast to the top of that pyramid despite all the limitations present in the rehearsal process.

Personal Experience

This semester, I was the Teaching Assistant under professor Jennifer Hart for the Musical Theatre Performance class at Hofstra University. During the course of the semester, I was able to put my rehearsal hierarchy to the test as I was put in charge of teaching "Song of Purple Summer" from *Spring Awakening* to the class of 2 males and 11 females. Using a few class periods spread throughout the semester, I saw how this model could work in practice and how it went over with the actors.

My main observation is that it was very difficult to stay away from the piano. Because I've led so many rehearsals by relying on the piano, I had to stop myself from resorting to plunking out the parts instead of using my voice to model or giving the solfège. This was particularly difficult during the a cappella section towards the end of the number; I made sure to rehearse that section many times, only using the piano as an aural guide instead of plunking out the parts. The rhythms in the song are also quite difficult, and so I had the class speak the text a few times through in rhythm before adding the notes in.

After two class periods of pure note and rhythm work, I moved up the hierarchy and began to discuss the text and style of the piece. I asked the class to consider the text and summarize each phrase in their own words. In the end, we came up with this summary: the text tells the listener about the importance of listening to and celebrating the wide-eyed and optimistic worldview of children and describes that perspective using natural imagery. The musical style is folk-oriented pop, which the class had no trouble settling in to.

Professor Hart handled the staging, which was a simple tableau throughout the song. Because there were no other theatrical elements to consider, we next worked on the acting of the song. I first asked the class to move freely throughout the room as the song progressed to get them thinking about how the music and words compelled them to move. I then asked them to “age” throughout the song: begin the song acting age 5, and end the song acting their current age. This exercise proved extremely effective, as the class generally progressed through a fun, optimistic phase (early childhood), a moody, reflective phase (adolescence), and a realistic, hopeful phase (college age). By the end, they were able to blend each of these perspectives into a fuller and more complex portrayal of the story.

This process clearly illustrated the idea that many actors like to jump to the top of the pyramid; even though some still struggled to find their notes during the a cappella section, they were eager to incorporate the work of the aging exercise into the performance. I made sure to constantly emphasize the importance of accurate notes, rhythms, and words, and how storytelling can only be layered on top after that foundation is established. Using the hierarchy taught me the importance of taking things one step at a time and emphasizing the basics and resulted in the actors delivering an impressive performance that incorporated each element of the hierarchy.

Conclusion

There are many factors that contribute to music direction's relative obscurity and misunderstanding. While some of these factors are external to the profession, we as practitioners should do all we can to alleviate any confusion about what an MD's job is and the best way to do it. The most successful MDs are strong as designers, managers, and teachers, and are always focusing on how to get the actors to tell the story of the show through their music. Those who go above and beyond try to do more than just teach the music of the show, teaching skills to actors that they can use for many rehearsal processes to come and finding a balance between challenging cast members musically and meeting them where they are.

Methods like sightreading and tools like solfège often take more time than the base model of plunking and rote learning, but pay off in the long-term by deepening actors' comprehension of the music and helping them to internalize it as soon as possible. This allows them to move up the rehearsal hierarchy, adding each element until they're able to act out a full story by drawing on each step of the pyramid. When actors try to go to the top too quickly, they often sacrifice the quality of the overall performance.

Music directors are the conduits for many sources of information in a rehearsal process, but their deepest connections are usually formed with the actors. Because singing and performing are such vulnerable acts (even for professionals), it takes a caring, intelligent individual to help guide someone through the process of using their talents to tell a story. I close with a quote from Melanie Guerin, which speaks to the larger impact that even the small act of teaching music can cause:

“My first passion is teaching music, and over the years I've clarified that the reason I am passionate about that is that I believe that music is a way of helping people connect with one another, so teaching music is a way of helping people learn to connect. I think musical theater is especially good at developing empathy and honest self-expression, so it's all part of my way of making the world a better place.” (Guerin interview)

Appendix A – Interview Questions

1. Name
2. What is your educational background?
3. How did you get started being an MD?
4. When did you decide you wanted to make it a career? Why did you make that decision?
5. What do you think is/are the most important part(s) of an MD's job?
6. What different methods do you use to teach music to actors? Which do you think is most effective, or do you have a favorite?
7. What sort of factors influence your decision to choose one method over another?
8. How do you adjust your teaching style when working with actors who read music and those who don't? How about a mix?
9. How has the development of technology impacted how you do your job?
10. How do you see your role in relation to the director's? What do you do to make that collaboration as successful as possible?

Works Cited

- . “What Does a Music Director (Theater) Do?” *Berklee Career Communities*.
www.berklee.edu/careers/roles/music-director-theater. Accessed 24 Feb 2018.
- Actors' Equity Association*. “Looking at Hiring Biases by the Numbers.” 27 June, 2017.
<http://www.actorsequity.org/NewsMedia/news2017/DiversityStudyfromEquityNews.asp>.
 Accessed 15 May 2018.
- Baker, Marcus. Personal interview. 2 Feb 2018.
- Blodgette, Kristen. “Making It Happen: Four Questions with *Sunset Boulevard* Musical Director & Conductor Kristen Blodgette.” *Broadway Box*, April 20th, 2017.
www.broadwaybox.com/daily-scoop/four-questions-with-sunset-blvd-conductor-kristen-blodgette/.
- Bureau of Labor Statistics*. “27-2011 Actors.” May 2017.
<https://www.bls.gov/oes/current/oes272011.htm>. Accessed 15 May 2018.
- Church, Joseph. *Music Direction for the Stage: A View from the Podium*. New York, Oxford, 2015. Print.
- Clement, Olivia. “Tips For Becoming a Music Director on Broadway.” *Playbill*, Sept. 15 2017.
www.playbill.com/article/tips-for-becoming-a-music-director-on-broadway. Accessed 24 Feb 2018.
- DeMaria, Matthew. Personal interview. 7 Feb 2018.
- Eschhofen, Jason. Personal interview. 3 Feb 2018.
- Ewen, David. “American Musical Theatre: An Introduction.” *The Complete Book of Light Opera*, edited by David Lubbock, New York: Appleton-Century-Crofts, 1962. Pp. 753-756.

- Frank, Scott. "How Many Actors are in New York?" *Hollywood Sapien*. 13 Dec 2012.
<https://hollywoodsapien.com/2012/12/13/how-many-actors-are-in-new-york/>. Accessed
15 May 2018.
- Fryling, David. "Three Steps to a Perfect Rehearsal." Handout. Hofstra University. Hempstead,
NY. 2018. Print.
- Fryling, David. Personal interview. 11 April 2018.
- Gilson, David. "A Guide to Musical Direction in the Amateur Theatre." *National Operatic &
Dramatic Association*, 2013.
- Guerin, Melanie. Personal Interview. 5 Feb 2018.
- Kaan, Gil. "MAMMA MIA! Conductor David Holcenberg's A Super Trouper Who Really
Knows the Name of the Game." *Betterlemons*, July 26th, 2017, better-
lemons.com/featured/mamma-mia-conductor-david-holcembergs-super-trouper-really-
knows-name-game/.
- Linderman, Ed. Personal Interview. 18 Mar 2018.
- Lindsey, Allen. "Is there a consensus on the music/vocal director conducting formal vocal warm-
ups with the cast?" 24 April 2018, 8:07am. Facebook thread.
- Mantai, Christine Davis. "Curtain Call! Brian Usifer, '03, Music Director on Broadway."
Fredonia Magazine, Aug. 21, 2013,
alumni.fredonia.edu/Magazine/SearchArticles/tabid/188/ID/423/Curtain-Call-Brian-
Usifer-03-Music-Director-on-Broadway.aspx.
- Marshall, Herbert D. *Strategies for Success in Musical Theatre: A Guide for Music Directors in
School, College, and Community Theatre*. New York: Oxford, 2016.

Meadows, Tameika. "Backward & Forward Chaining." *I Love ABA!*, 1 Aug. 2016,
www.iloveaba.com/2013/09/backward-forward-chaining.html.

Meyer, JP. Personal interview. 9 Feb 2018.

Pardo, Dan. "I don't want to beat a dead horse re: absence of a Tony Award for Music
Direction..." 5 May 2018, 1:35 p.m. Facebook post.

Pool, Matthew J. Personal interview. 2 Feb 2018.

Prep, Kerry. Personal interview. 9 April 2018.

Reed, Casey. "Theatre Music Direction in New York City." Dissertation, Northwestern
University, 2016.

Renoni, David. Personal interview. 1 Feb 2018.

Shegogue, Marci. Personal interview. 1 Feb 2018.

Small, Mark. "Stephen Oremus: Echoing Across Broadway." *Berklee Today*, Spring 2015.

www.berklee.edu/berklee-today/spring-2015/stephen-oremus-echoing-across-broadway

Stewart, Amy. Personal interview. 10 Feb 2018.

Suskin, Steven. 2009. *The Sound of Broadway Music: A Book of Broadway*

Orchestrators and Orchestrations. New York: Oxford University Press.