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INVESTIGATING THE BARRIERS TO EFFECTIVE STRING BASS EDUCATION IN RHODE ISLAND PUBLIC SCHOOLS

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INVESTIGATING THE BARRIERS TO EFFECTIVE STRING BASS EDUCATION
IN RHODE ISLAND PUBLIC SCHOOLS

BY
JEREMY KLEPACKI

A THESIS SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS
FOR THE DEGREE OF
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MASTER OF MUSIC IN MUSIC EDUCATION THESIS

OF

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ABSTRACT

This research study identified and targeted two research questions pertaining to string bass instruction within the context of ensemble-based music education in the public schools of Rhode Island: 1) What challenges do public music educators experience in teaching the string bass? and 2) How do public music educators address and contend with those challenges? Using qualitative methods the researcher designed and interviewed current secondary-level instrumental music directors who have experience leading ensembles with string bass players. Data analysis of interviews of four participants revealed four distinct challenge themes and four respective solution themes: teacher expertise challenges/solutions, instructional challenges/solutions, bass-specific challenges/solutions, and genre-specific challenges/solutions. Findings included teachers expressing apprehension concerning their individual experience with the instrument and the need to balance group instruction with individual instruction in a variety of genres. Recommendations for addressing barriers predominantly included private study, along with professional examples, peer mentoring, technology, and continued professional development specific to the instrument.

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Introduction

The string bass is an instrument that is visible in multiple musical contexts, such as the symphony orchestra and the jazz ensemble. These two settings require bassists to employ a plethora of diverse skills. In the orchestra, a bassist is required to read a part and play with the bow, known as “arco” playing. In jazz, a bassist may also read a part, but at a more advanced level, they are required to conceptually understand a chord progression and improvise a bass line while playing with the fingers (also known as “pizzicato” playing). This is only the beginning of the dichotomy, and past research (Aaron, 1996) has acknowledged that the demands of bass players have grown since the 20th century. In the orchestra, several bassists are expected to play a precomposed part in unison together, but in the jazz ensembles, a singular bassist (within a rhythm section including piano, guitar, and drums) provides a percussive foundation that maintains the tempo, form, and harmony. Different jazz song structures (12-bar blues, 32-bar AABA) and rhythmic styles (swing, waltz, and Latin) are identifiable through distinct basslines which any bassist must be ready to provide. While the orchestra is the more traditional context of bass playing, jazz has become increasingly prevalent in both professional and educational settings. Now, playing in both ensembles is common practice for a bass player, regardless of the different skills required.

Public school music programs may offer one or both of these ensembles to students; however, the number of student bassists needed to fulfill the needs of these groups may be limited. For this reason, it is possible that one or a few available bassists may be asked to participate in both ensembles. This situation presents an immense challenge for students because of the multitude of skills that are necessary to adequately

participate in both ensembles. Since most public school music educators are not experienced bassists, it is worth investigating how educators teach the bass and what resources students can expect to have available to them. Thus, to more deeply understand the nature of teaching bass in the public schools, the researcher sought answers to the following research questions: 1) What challenges do public music educators experience in teaching the string bass? and 2) How do public music educators address and contend with those challenges?

The purpose of this master's thesis is to discover how instrumental teachers are teaching the string bass, what challenges they encounter in doing so, and how they are contending with those challenges. Through interviews of Rhode Island music educators who teach bass, the researcher sought to determine how music educators are teaching bass students to play in the orchestra and jazz band, and to discover educational strategies that can be applied to the teaching of bass in both settings. This document presents an analysis of the findings and suggests instructional strategies that the non-bassist music educator may use to teach bass students how to play in multiple types of ensembles, namely the jazz band and the symphony orchestra. The most salient solution identified in this study was the use of private pedagogy to supplement ensemble instruction.

Answering the questions and investigating the objectives above will assist non-bassist teachers in providing their student bassists with the key information needed to successfully participate in ensembles that require divergent skill sets. It is reasonable to predict that students may participate in more than one type of ensemble, but the requisite skills will be different in each. Orchestral competencies are not the same as jazz competencies, but a student may be expected to have both when they are the only one

available to play in both settings. Lastly, the findings of this study reveal a crucial relationship between ensemble-based instruction and private studio pedagogy, but because teaching methods vary between these two settings, the suggestions and conclusions herein are intended to apply most to the former.

Literature Review

A review of relevant literature reveals that bass instructors have historically identified difficulties in teaching the string bass, particularly for music educators who are not bassists (Warner, 1958; Turetsky, 1960; Hurst, 1985; Cross, 1989). Such music teachers may experience numerous and significant difficulties in providing sufficient instruction to bass students. A teacher's lack of expertise with the instrument can be exacerbated by the diverse skill sets required of bassists in diverse ensemble settings, which is closely tied to the proliferation of jazz and funk music in the 20th century (Aaron, 1996).

While not directly concerned with public school pedagogy and related teaching strategies, other authors identified characteristics of the string bass that can cause issues of uniformity and consistency among the musicians who play it. These factors ranged from physical construction and set-up (Moeckel, 1968) to performance opportunities (Bitz, 1997), and some identified a wide breadth of pedagogical materials that could be used in private lesson settings (Cross, 1986; Aaron, 1996). Moeckel (1968) identified that the physical construction of the instrument is not always consistent, and that there needs to be some form of standardized construction from which bassists can familiarize themselves; this inconsistency presents another barrier to successful instruction. Presently, bassists do have a more uniform set-up for the instrument, but they have not

adopted all of Moeckel's suggestions. Another author theorized that bassists lack supplemental performance opportunities (i.e., chamber music ensembles) which would enhance skill development (Bitz, 1997). Masuzzo (2002) even suggested that players may find it advantageous to retune the instrument to intervals of fifths instead of fourths, and yet another traced a long history of instrumental tuning systems that complicated this standardized practice (Chapman, 2003).

Solutions to these issues warrant further investigation and research. In relation to the concerns of authors who specifically sought to improve school-based music education, this author believes it is imperative to evaluate how ensemble directors teach their bass students to play the instrument, and use that investigation to form suggestions regarding how to prepare students for playing in multiple settings. In order to prepare the students and provide them with an ample opportunity for success, music teachers must be prepared for comprehensive teaching regardless of whether their backgrounds and expertise are tailored to specific scenarios.

Method

Because the research questions were best addressed through interviews, a qualitative methodology was used. The researcher conducted a series of interviews with secondary level music educators who direct either an orchestra or jazz ensemble. The researcher identified and selected participants based upon their positions as music faculty members at educational institutions. Purposeful sampling identified four music educators whom the researcher invited to participate via email. He then asked each participant a series of scripted qualitative questions based upon the research objectives (see Table 1). In some cases, interviews included additional unique questions, which resulted from the

answers that participants provided during the process. Interview questions facilitated a rich description of those processes and the individual perspectives of each participant. The researcher was unable to observe classrooms primarily because of the challenges of COVID-19 and school safety protocols. By remaining physically apart from the educational setting, safety for the participants and their students was maintained. Further, due to the circumstances presented by COVID-19, participants and the researcher met remotely through a Zoom™ platform.

This research was approved through the University of Rhode Island's Internal Review Board (IRB). The interviewees agreed to participate via their signature on a consent form, and they were able to remove themselves from the study at any time, though no participant elected to cease participation. If at any time during the research process the participants had any questions or concerns, they were able to contact the researcher at the provided email address. General correspondence throughout the study was maintained through the medium of email. In the final report of this study, the responses of each participant are detailed independently of any personally identifiable information; pseudonyms are used.

The aim of this project is to assist music teachers in the instruction of bass students in classroom music education. While the results of this study are not generalizable to all classroom settings, readers will find transferability of content specific to their settings as they apply the findings to teaching bass under various settings. Acknowledging that teaching strategies differ between group and studio instruction scenarios, researcher conclusions may be best applied to classroom instruction.

This study was conducted over a period of five months. After approval by the IRB, the researcher invited several music educators in the state via email with a description of the purpose and process of the study, as well as the participation consent form. Four individuals elected to participate. Each participant was interviewed in a single session on Zoom™, 30 to 60 minutes in duration. The researcher recorded and transcribed each interview within a week of the interview. Themes were developed in relation to research questions, and each interview transcript was coded for those themes, which were: a) teacher-expertise challenges and solutions; b) instructional challenges and solutions; c) bass-specific challenges and solutions; d) genre-specific challenges and solutions. All coded data was then collated into a single document, and quoted material in this document was taken from the collated and coded data.

The researcher synthesized and interpreted the data, which resulted in a rich description of findings of the study. While the basis of inquiry was a standard group of questions, the interview method allowed the researcher to pursue additional details (“follow-up” questions) in relation to each participant’s unique experience and perspectives. The desired information pertained to how an educational behavior was conducted, and so description and detail varied from participant to participant. The interviewees’ answers to questions were influenced and guided by their own personal experiences. Participant perspectives were then synthesized into interpretational conclusions by the researcher.

Table 1: Interview Questions

-
1. Describe your current position as a music educator.
 2. Provide some background information about your career as a music teacher.
 3. Describe your experience teaching string bass.
 4. What skills and knowledge do you believe are essential for a string bass student to learn?
 5. What approaches do you use to teach string bass students?
 6. How do you (the orchestra director) teach string bass?
 7. How do you (the big band director) teach string bass/jazz bass playing?
 8. How would you prepare the orchestral bassist for a jazz big band setting? Vice versa?
 9. What criteria do you use to select materials to teach string bass?
 10. How do you decide what teaching techniques to use?
 11. What professional development would help improve teaching the string bass student?
 12. What are the barriers/challenges to teaching string bass successfully?
 13. How has your teaching of string bass changed over time?
 14. Is there anything that you would like to add?
-

Participants

The participants in this study were all music educators in the state of Rhode Island. The researcher aimed to invite participants who equally represented orchestra and jazz directors, including those who conducted both groups. (See Table 2: Participant Information). Four public music educators at the secondary level were participants in this study, but their positions do not uniformly include the same roles. The researcher aimed to maintain equal representation of both ensembles because identifying the differences of bass playing in each genre is critical to understanding the subsequent difficulties placed onto students and teachers. Ultimately, while the participants did not perfectly represent a balance with equal representation of jazz and orchestra teaching, two participants, Paul and David, had sufficient experience in teaching both. One other participant, Lia, had some orchestral experience, but she is mainly a concert and jazz band director. The difficulty in achieving equal representation may be attributed to a much greater prevalence of jazz education over string education in public school systems, at least in the

geographic location where this research study was carried out. Additionally, in the schools that do offer both ensembles, they may not be taught by the same teacher, as is the case with the schools of Randy and Lia.

Brief Participant Descriptions

Of these participants, three are high school instrumental music directors - one of whom is retired - and one is a middle school music teacher and band director. They were chosen for their experience as instrumental directors, and particularly for their practice in teaching bass players. Collectively, they have varied concentrations, but they all have experience directing ensembles in which bass students were present.

Paul is a high school instrumental music director who has been teaching music for 35 years. He has mainly taught concert band and jazz band throughout his career, but in the last five years, he has directed string ensembles and a full symphony orchestra as well. His current position also involves music theory and guitar. Finally, his experience includes some years of directing chorus, teaching general music, and instruction in higher education.

Randy is currently a middle school (i.e., grades 7 & 8) classroom music teacher and band director, serving in this position for the past five years. In the first 10 years of his career, he taught at two separate high schools in which responsibilities varied, but collectively included concert/marching band, jazz band, chorus, AP music theory, and history of rock and roll.

Lia began as a middle school music teacher in a position that included orchestra and general music. After leaving that position, she taught beginning fifth grade band for four years before moving on to a high school position, where she currently teaches. This

position includes three different music history classes, concert band, jazz big band, and jazz combo. She has been at this school for more than 20 years.

David is retired from public school teaching, but currently is the executive director for a nonprofit organization that provides string instruction to children and adults. He became a music educator after years of professional performing. He started as a string teacher and changed districts after the first two years. In the following position, responsibilities evolved from strings, resulting in the inclusion of strings/orchestra, band, chorus, jazz band, and general music. He has taught all grades from K-12 but the majority of his career was spent at the middle and high school levels. It is important to note that of all four participants in this study, he is the only one who plays the double bass as a primary instrument.

Table 2: Participant Information

Name	Current School Level	Currently Teaches	Previously Taught
Paul	High School 9-12	Orchestra/Strings, Jazz Band, Concert Band, Music Theory, Guitar	Concert Band, Jazz Band, Chorus, General Music, Higher Education
Randy	Middle School 7-8	Concert Band, Jazz Band, General Music	Concert/Marching Band, Jazz Band, AP Music Theory, Chorus, Music History
Lia	High School 9-12	Jazz Big Band, Jazz Combo, Concert Band, Music History	Orchestra, General Music, 5th Grade Band
David	Retired	Retired	Orchestra/Strings, Jazz Band, Concert Band, Chorus, General Music

Themes

The researcher conducted qualitative analysis through synthesis and interpretation of data coded for emergent themes. He identified four essential codes that serve to categorize the types of challenges that participants contend with, and the possible solutions to each. These codes are a) teacher expertise, b) instructional, c) bass-specific, and d) genre-specific. The deep discussion of each code directly follows its summative description to aid readers in finding relevance to their settings. Further, the description and discussion of the results provided here includes participant voices, and where possible, direct quotes from the participants as well.

Pertaining to the research question of challenges that music educators face in teaching the string bass, the interviews revealed a wealth of information when categorized for distinct codes of teacher expertise, instructional, bass-specific, and genre-specific challenges. Teacher expertise defines each participant's level of bass proficiency and pedagogy. Instructional challenges include a wide array of possibilities, ranging from school schedules to the background knowledge of the students. Bass-specific challenges are those that the instrument inherently poses for students, such as its immense size. Finally, genre-specific challenges exist in the nature of their musical practice, essentially, the skills and knowledge required in one musical style as opposed to another.

Participants offered perspectives and ideas that responded to the aforementioned challenges, and the researcher includes four parallel solution codes for each of them. Each participant offered a wide variety of answers as to how they contend with the challenges that they face in their positions. Between these four basic codes assigned to

both challenges and solutions, the data reveals meaningful answers to the research questions.

In response to the interview questions, the four research participants elaborated upon the difficulties of teaching the string bass. Further, the research revealed both the perspective challenges of teachers whose primary instrument is the bass and those who are non-bassist teachers, as well as what help may be found in a professional bassist's perspectives. Summaries and discussions of each research code are found below.

Teacher Expertise Challenges and Solutions

For the participant educators who do not play the bass as their primary instrument, one of the most obvious difficulties they contend with is their own limited knowledge and experience with it. In this study, only one participant was a bassist, and so among the others, teacher expertise challenges are a commonality. Hence, these participants identified a need for more knowledge and time with the instrument. However, in place of the opportunity to gain experience, these teachers must rely on an openness to use other resources and opportunities, such as private pedagogy, books/online media, adjudicators at festivals, and professional bassists who can serve as guest educators and provide masterclasses. Generally, in order to provide the best quality of instruction to bass students, educators must embrace other possible sources of information and instruction.

Discussion

Though he is a trumpet player, Paul described how his past experiences as a professional musician guided his knowledge and conceptualization of high quality bass playing. These established the foundation for what skills he sought to foster in his students.

I've worked with a lot of bass players over the decades, so I have a lot of ideas about what the bass should sound like, combined with what the charts are asking of the student to play - has led me to an understanding of what the bass needs to do, combined with all the listening that I do and the listening I've done throughout my life.

By playing in ensembles where bass players were present, Paul was able to observe skilled bass playing, and develop an idea of what qualities his students could work to build. While this experience provided him with a model, it did not necessarily show the steps and processes for students to reach it. Thus, outside resources became extremely important as well, and Paul readily shared what they were.

I've taken advanced string class pedagogy lessons. I've observed teachers on various instruments to try to pick their brain and utilize what they know. I've brought in people to my program who were specialists and watched them work, and [tried] to learn from them. I've also found a lot because YouTube is so helpful for music teachers. I found a lot of master classes and lesson material on YouTube for how to teach various skills on various instruments. I've done private study which I would recommend first and foremost to anybody that wants to. If you really want to know how to

play an instrument [and] know about it, start playing it.

Study it privately with somebody.

Paul was certainly open to numerous resources and programs; even beyond recommending private study, he sought professional development and supplementary instruction for his students. He elaborated upon other opportunities as well:

I learned a lot about the bass by bringing my jazz bands to jazz festival and having a rhythm section and/or bass player as one of the judges make comments to the bass player about maybe his technique, his volume, his tone, things that he should be paying attention to. I've learned a lot about all of the instruments in the rhythm section from adjudicators at festivals that have heard my group. So being a trumpet player, I've had to be particularly attentive to the rhythm section, because when I started teaching jazz band, I felt like the rhythm section was maybe a lot less familiar.

All of Paul's statements reveal the recommended scope of an educator's willingness to seek as many additional resources as possible; a network of other musicians, materials, and professional development workshops create an amalgamation of expertise beyond the primary educator's own prowess. As one further source of transferable expertise, he even mentioned that his knowledge of the guitar assists with bass instruction as well because guitar students can learn how to use their lower strings like a bass, and then learn bassline development thereafter. To be clear, however, this statement was made within the context of jazz-centered bass instruction.

Still, some teachers may behold a greater emphasis on their own knowledge and wisdom for the instrument itself. For example, Randy chose to emphasize experiential learning and the importance of one's own experience with the bass. "I really want to even say that it's less about being taught how to teach it and more about knowing how to do it in the first place," he stated. "That's the kind of professional development that would be most useful."

The researcher asked Randy to clarify whether he was advocating for an experience of playing in a professional ensemble on a different instrument that provides opportunity to observe an expert bassist, or direct experience playing the bass in an ensemble. He affirmed that while observational learning is beneficial, he believes that the opportunity for an educator to personally experience playing the instrument would yield the best results.

Well, I think ensemble experience with a bass player present is important. And I would say, given the opportunity to have a bass player to teach would elicit most, if not all, music educators to better train themselves and seek out the learning that they need. So I think that would result in better outcomes for bass players and better pedagogy from teachers. But in this particular case, I mean being able to actually perform that function in an ensemble. The vast majority of us have not performed the bass role in an ensemble in any fashion, and so I think that learning even in and of itself, whether it's playing bass or playing

tuba or playing anything, - functioning in that role would provide some pretty important learning experientially that ... good teachers [could take] and turn it into pedagogy.

Taken together, Paul and Randy emphasized two different experiences, though both practices have considerable benefits. Paul's experience of playing in professional ensembles presented a model for effective bass playing, but Randy's desire would perhaps allow the teacher to more deeply understand how the development of bass proficiencies would feel in a student's perspective. A teacher's direct experience in learning how to actually play the bass would be an opportunity to personally contend with the possible challenges of learning. When in a position to experience difficulties, music teachers could ideally anticipate and predict what problems a student might have. With that, other resources, such as online media, article publications, and instrumental experts would be more purposefully applied. If a teacher identifies a specific issue through their own experience, an applicable solution is easier to seek.

Nevertheless, educators cannot be expected to be experts of every instrument and considering the sheer number of instruments in a given ensemble, teachers will experience these same expertise challenges for other instruments as well. In that sense, the string bass is not a special case. Ensemble directors will supplement their own knowledge for the bass in similar ways to how they do so for other instruments. Paul shared a summative statement that is perhaps the most eloquent description of this difficult reality in ensemble teaching:

So, could I have a lot more understanding and pedagogical knowledge of the bass? Absolutely. ... It's probably not

enough because “enough” is when you can give a student all of the information that they need to be successful without a private teacher. So having said that, if that's my standard, I probably don't know enough about a lot of instruments. So, I tend to teach what's most important to make the music sound good and to help the student with the known technique points that I can address.

Based upon the challenges to teaching individual instruments and Paul's viewpoint that an educator's perspective may have to be built from the immediate needs of the repertoire that an ensemble is preparing, encouraging separate private instruction emerges as one common solution to individual teacher expertise on bass. Perhaps private study for students is the most important instructional factor in growth that occurs outside of the music classroom. Since music teachers find private study necessary for addressing the individual skills that group classes cannot focus on, educators prioritize instruction that is applicable to everyone in the room. So, instrument-specific directions and feedback are provided to serve the needs of the music being played. From personal experience, Randy communicated a similar approach.

A director can make excuses for themselves about not providing the same detail and level of instruction in terms of instrument- specific pedagogy, as long as the level of musical instruction provided is the same as provided to everyone else. So, providing information about the function of the instrument within the context of the ensemble is

necessary and nobody can talk their way out of that. You need to be able to teach a bass player about their role and how to play their role in the ensemble, and not to say that the pedagogy of the actual instrument is not just as important. I just think it's easier, and - case in point, to use as an example, when I had the bass player with the university groups, quote-unquote sitting in, filling in on one piece, ... I didn't presume to know in any way that instrument's technique better than a college undergraduate, and that would have been presumptuous on my part, purely on the level of the musicality and what needs to happen in music, and [so I] allow the players themselves to figure out the technique. When there are private lessons in the mix, I actually think that is an okay compromise to make, but I would feel much less capable and confident in my ability to adequately simplify or alter a bass part while keeping it true to its role within the ensemble and the intent of the composer.

Evidently, ensemble-based instruction is filled with challenges and compromises. Considering Randy's statement, private lessons for students are not only ideal, they are critical. Still, it is unreasonable to expect that each student would take private lessons, regardless of their availability. At this juncture, the challenges of teacher expertise begin

to overlap and compound with instructional challenges because the solutions to expertise issues can be impeded by instructional problems.

Instructional Challenges and Solutions

Factors relating to the time, structure, and nature of instruction were numerous. When discussing instructional challenges and solutions, participants noted that there was not enough time during rehearsal, which results in teaching to the majority. Also, other common concerns included not enough time in the weekly schedule for group instruction and the wide range of teacher's understanding of individual students' diverse prior knowledge and learning styles. The participants further offered solutions to these challenges which included encouraging private lessons, peer mentorship, using technology to supplement instruction, providing professional models, assessing the students' background and needs, and using multi-sensory instruction (aural, visual, kinesthetic).

Discussion

To begin, Paul described the challenges incited by the general availability of rehearsal time, and how the schedules of individual students can exacerbate limitations.

You need to think about the schedule. For instance, if you're working at the middle school level and you only see this student once a week in a jazz band rehearsal, that's the only time you see them. And maybe they're an athlete and they're not available any day after school. And the only time you're going to see them is on a Tuesday night rehearsal. Then you need to think about "alright, I need

some things that this student can do in a relatively short amount of time so that they can contribute to the music that we're going to study one night a week.” But, if you see them in a class for 90 minutes every other day, or you see them every day for 45 minutes, that's a different situation. Now you can really have a daily impact on them, and you can develop at a certain rate that's very different than if you saw them one night a week for two hours and only in a big band rehearsal.

Because limited rehearsal time is a major instructional issue, Paul and Randy agreed that music teachers are challenged to prioritize instruction based upon the need to benefit the majority of students in an ensemble. Paul shared that because there are less bass players in a typical ensemble, directors “tend to gravitate” toward the majority. “So in the orchestra I pay a lot more attention to the upper strings and the cellos, 'cause there's so many more of them.” Bass-specific instruction, instead, is on a “peripheral level” based on the needs of the repertoire such as when bass parts are exposed, or “when they're isolated with the cello, for instance, or when they have a line by themselves.”

Randy elaborated on this perspective, stating:

Inconsistent presence of the instrument in ensembles creates sort of a skewed prioritization of attention to the student when they are there ... If you've got 20 or 30 clarinet players in front of you, you better know the

clarinet pretty well, but that one poor student playing the bass or the oboe or the bassoon, you spend some time, you don't leave them totally out to dry, but you've got 20 students here and one student there.”

Both Paul and Randy recognize the unfortunate reality that some students will receive less instructional attention simply because they are not playing an instrument that is in the majority. “And whether it's appropriate or not, is a different question,” Randy explained, “but that [teaching to the majority] certainly is something that actually happens in the real world.” These concerns are additional reasons as to why Paul and Randy emphasized the importance of private study outside of school. Paul articulated that private study is an essential factor in alleviating the limitations caused by limited rehearsal time.

What supersedes all of this - the ideal situation is a private teacher for every student. We all wish every one of our kids could have a one-on-one lesson with a teacher that the student were accountable toward, who's an expert and a professional on that instrument. And that's a luxury that almost nobody has, but that's the ideal situation.

If students engage in private lessons, then they could receive the individual, instrument-specific instruction and attention that they do not receive during rehearsals. However, what would be the result if a student did not have interest in taking lessons? Conversely, what if the lessons were not available or the family could not afford them? When private lessons can more easily focus on instrumental technique and pedagogy,

how does the school setting complement or hinder progress? Questions such as these indicate that possible solutions are not without their own issues; many factors converge together to complicate any strategies that an educator could seek to use. To address one of these issues, Paul shared his solution to lesson availability:

But because the bass is so important, I've been known to use grant money. In fact, with my two bass players that I currently have, they have both been given lessons through grant money, and I have grant-funded those lessons because of the importance of the instrument to the ensemble. I probably would not do that for a violinist because we have 20 violin players, and I know that those students have lots of other students to learn from, and I know they'll get a lot of support in class.

Paul's statement reveals a wealth of information regarding instrumental music education and its implications for bass students, even beyond the solution he articulates. His ratio of violinists to bass players has a direct correlation to the distribution of his attention during rehearsal (as is also evidenced in a previous quote), but it also has an impact on the students' personal resources. A large body of students who play the same instrument can practice together, model for each other, and seek each other's help. There is a greater likelihood for a leader/model to be present in a group of 20 students rather than two or three. Hence, peer instruction can be another tactic that directors can employ. But, those bassists have fewer personal resources amongst themselves. Fortunately, Paul has a method for balancing the discrepancy of resources available to students, though of

course, this strategy is always dependent upon the availability of funding. So, greater numbers facilitate leadership and mentoring regardless of private instruction usage. Instrumentalists in the majority have the benefits of the director's attention and each other, which makes the need of attention for bassists even more imperative.

Regardless of the benefits brought through private study and peer mentoring, the limitations of attention paid to bass students raises further questions concerning why the bass is so underrepresented in ensembles, regardless of whether the repertoire requires fewer bassists. If there were more bass students, would the teacher's attention be distributed differently? However, what steps are necessary in order to garner more bassists? Is the problem cyclical, meaning that if students know they will receive less support, do even fewer of them elect to play the instrument? Paul mentioned that he has had some success in getting students who played other instruments to switch to the bass, but this is not an infallible strategy.

You've got to get them to want to do it, so a lot of what we do in our field is a lot of selling with the kids, and get them to buy into an instrument they might not be familiar with or might not know that they could be good at. The biggest concern that kids have when they switch is "I think I'm gonna suck at it, like I'm not going to be at the same level I was at on the instrument you're asking me to leave" and so that usually is a bigger concern - that "I don't know if I like this or not." It's usually they don't know if they're going to be good enough, fast enough, and that's where you have to

offer a lot of support to those kids who do change over. So,
I think attitude has a lot to do with it.

Students want to play instruments that they believe they can be successful on, but this may be a deceptively complex consideration because several instructional challenges can be interconnected, such as how student investment, available time, and the potential for private study impact each other. These participants noted the importance of student motivation and interest, as well as the selection of repertoire that would be appropriate to their skill levels. With an assessment of the students' proficiencies, their motivation, and available time, educators could provide appropriately challenging music so that students could feel their own progress and demonstrate accomplishment. Although, if a student does elect to try the bass after a switch from another instrument, how can the educator facilitate reasonable and timely growth? Would such a student be disadvantaged as compared to others who do not switch instruments? Relating back to possible solutions, private lessons and study outside of the standard school schedule would be a likely choice in helping the student accelerate to the necessary proficiency level. But, this student would need sufficient motivation and time to develop. Being a bassist, David described the appropriate function of a private lesson context while still recognizing other factors that can impact its success:

Well, there has to be buy-in, you know you have to have a willing student - that's number one. ... You're only showing them the work that needs to be done in a lesson. I mean other than teaching them a skill, unveiling that skill, exposing that skill, they're the ones that have to develop

that skill. So it's got to be understood that they have to start those 10,000 hours to become proficient on the instrument. You have to guide them towards setting a reasonable schedule that will work with your goals and with the time available to them, and set your goals accordingly. Don't set unrealistic goals that they can't possibly reach with the amount of time that they have to practice.

While this statement focuses on the private lesson environment, the educational principles apply to school settings. Instrumental ensemble directors concentrate their time and energy on reasonable goals that can be accomplished in a class period while also relying on students to have some responsibility and accountability for their own progress. Each rehearsal repeats this process, moving toward a larger, long-term goal for the performance repertoire (appropriately set by the director according to time constraints and the students' ability and effort). Plus, students must spend time practicing the fundamentals of musicianship and instrumental technique before they can learn the intricacies of repertoire. So, for new bassists in ensembles, directors should help them to set goals which will have an immediate impact upon broader musical goals applicable to the group as a whole, no matter how basic they may be. Though again, with the addition of private study, bass students' progress could ideally accelerate.

To summarize private pedagogy's implications upon a school ensemble, if a student studies their instrument with a professional outside of school, then ideally, the school ensemble director would be able to focus less rehearsal time on instrumental technique, or how a student should play an instrument. As discussed previously, expertise

challenges can make it difficult for directors to do this anyway. Therefore, with the incorporation of private study, educators could focus their attention on teaching universal musicianship skills and how to develop a piece of repertoire. Randy indicated that this is a strategy already in use, saying:

There is an extent to which I'm grounded in a music-centered teaching model, and what I mean by that is that the instruction, as much as possible, talks about the sound and talks about the music itself, rather than focusing on the technique with which to achieve some result to be stipulated in the future.

Randy suggests through this statement that music education needs to be prioritized according to larger, long-term “big picture” goals, as well as why students become invested in playing music. Hopefully, students will decide to learn instruments because they want to play music, not because they desire to be arbitrary experts of instrumental technique. Therefore, when rehearsal time is limited, educators want the students to learn as much as possible, but they are also aware of the necessity to satisfy the needs of student investment. Retention issues are a common concern, and in order to keep students involved in the music program, they need to enjoy what they are doing. So, educators provide specific instruction that targets what the repertoire needs in order to improve, not what the students would need to become performing professionals or virtuosos later in life. The students feel their success when they play a challenging piece of music well, not when they can use an extended technique without an immediate purpose. What this means for bass students is the same for any other instrumental

student; it is a real possibility that instrument-specific feedback will serve a direct purpose for the repertoire. Outside of that repertoire, the student will have significant responsibility for acquiring instrumental skill. For a fully developed music education, the ensemble director and the private teacher have a necessary relationship because neither can provide everything that a student needs. Since participants note that private teachers are usually the best choice for helping students acquire skills in playing the instrument, an additional role of the ensemble music teacher is to help their students find private teachers. In doing so, an integrated relationship of both instructors allows the students to develop both individual and ensemble skills.

Aside from all of the previously mentioned solutions, modern developments and applications of technology have provided new instructional tools which can be used to address a variety of problems, though they are of course inseparable from their own issues as well. Lia elaborated upon how she takes advantage of educational technology:

I now use a lot more technology, rather than the books in the past. And with that, the nice thing is that you get a lot of recordings or transcriptions. So, if they are doing SmartMusic, they can see their own mistakes when they play. If they are doing Sightreading Factory, they can play along to it and then hear it, play it back and hear what they did. They can hear samples of things and then echo it.

That's pretty good.

These applications can be extremely useful because in some ways they compensate for the lack of individual attention in rehearsals and the availability of

rehearsal time in the schedule. An instrumental student can record their performance into a piece of technology and receive feedback. They can be shown what mistakes they made and they can hear a model performance to compare themselves to. Although, ascertaining the nature and quality of technology's specific directions to correct errors is worth further investigation.

Still, Lia employs other components of technology to serve similar needs in other ways. There are additional strategies to provide students with high quality musical examples.

Because of Google Classroom, I can put examples for the kids to reference. I don't know how many actually do, but I'll put recordings of it [there]. In my history of jazz class, I cover a few basses and what I often do is, when we are studying like saxophones and trumpets, I'll put a list on the side of those musicians that are in the rhythm section so the kids ... can see those names and hopefully go check out those musicians and make a connection there.

The opportunity for a student to see a professional example outside of the regular class schedule can be an excellent source of modeling and motivation when the teacher cannot serve every individual student within the allotted time. As such, the ability to provide additional resources can hopefully assist students in self-directed study. If a student recognizes personal accountability, perhaps they can learn and improve without the need of direct help from the teacher.

However, Lia did find some problems with the use of technology. In some cases, the instruction is not quick and direct.

I also use YouTube a lot, but the problem is that a lot of the lessons on bass ... they try to be too cool and too funky and hip, and the point of the lesson doesn't always come across. There's just too much other stuff in there trying to sell it. Rather than just get to okay, here is a bassline for a classic swing tune. Here's how you would arpeggiate it. Here's how you walk it. Now let's go over to a Charlie Parker tune and let's look at how you would outline those chords, etc. So sometimes the clarity is not there for high school level kids.

Similar to the issues of regular class time and instruction, technological resources should be succinct and clear to achieve immediate results. If a student devotes time outside of class to use educational technology, its usage should be evidently clear and serve a direct purpose to the goals of the related ensemble. This is analogous to the structure and function of teacher feedback during rehearsal: directions should be readily applicable to the work being done.

The learning style of individual students is closely related to, and influenced by, the nature of resources and instruction. Not only must resources and directions be structurally efficient, but they must also be functionally efficient as well. The presentation of the content is exceptionally critical because time management means little if the lesson being administered in that time is not understood by the pupil. Paul revealed

that a student's fundamental nature and learning style have an immeasurable impact upon how instruction is brought to class.

Well, the student dictates everything. What is the student's background? What is their interest; what is their capacity to work hard? Some students have a capacity to really focus and really work on something. So, if you show them how to do something, they will work on it and they will develop it. Some students can't do anything unless you're standing in front of them. So, you have to think about the student and what they're willing to do and what you can inspire them to do. Or what you can aspire for them. You have to think about, obviously, their ability level, their technical ability level, you [have] got to think about how they learn, if you know anything about them as a learner.

David concurred with Paul and offered some further examples of how lessons need to be presented.

You have to establish what kind of a learner your student is and you want to present it in several ways. You want to do it verbally. You want to do it intuitively. You want to do it visually. You want to do it tactilely; there's various ways of learning. But, first of all, find which way the student is most receptive to what you're trying to teach, and then try to focus on that, but present your lesson in various ways.

For example, present it visually on the sheet music. Produce examples of it rather through YouTube or [through] your modeling of it. And actually, try to physically work with the student's hand positions, body carriage, relaxation techniques. Whatever you assess that the student's needs are, and that has to come from time with the student.

The combination of the teacher's instructional strategies and the student's practice are the determining factors of development, but the challenge for educators will be to ascertain what specific strategies will complement the work and effort of each individual student. Of course, in a group rehearsal session when a variety of students are present, this is yet another difficult task. Perhaps this scenario is an opportune purpose for making technological resources available outside of rehearsal, so that students may learn with the methods they require at the appropriate schedule and pace. Differentiation of instruction will be a constant task when new students enter every year. Because of this, teachers will need to anticipate future needs based upon past experiences and plan accordingly for an ever-changing body of students.

Bass-Specific Challenges and Solutions

The string bass itself does behold some instrument-specific challenges for educators. Perhaps most obviously, its size is a predominant challenge. Students should optimally have the physicality necessary to play it, but even with the proper body frame, this issue extends into ease of transportation and the availability of an instrument both at school and home. Additionally, some participants noted the challenges of equipment and

amplification - how to properly set up and use an amplifier, and how to balance it with the rest of an ensemble. In some cases, the physical bass itself is a variable when students use an electric bass as opposed to the acoustic string bass. Also, the nature of bass parts in ensemble repertoire may not be interesting enough to garner student interest. Although, the role of the bass has expanded in recent years, which can motivate student investment but also increase playing difficulties. When put together, these developments have added to the expectations of bass students in several different ways.

Discussion

The cumbersome size of the bass is not only a barrier to the ability to play it, but also to its accessibility. The instrument requires significant storage space and transportation is a consideration that is not to be underestimated. Paul suggested that separate instruments be available both at the school and at the student's home.

A big barrier is access to a quality instrument both at school and at home. Realistically, to be able to teach string bass, you need to make sure that you have a quality instrument at school and you can allow that student to take one to bring home because you don't really want them coming back and forth from school to home with a string bass; it's just not a good idea. Now there are exceptions to that. Sometimes I've had students who always got a ride to school from Mom or Dad in a minivan, and there was plenty of room in the minivan, and so if that's the case and they are able to bring that string bass to and fro, they can do

that, but the larger an instrument like the string bass, [you are] asking for damage when you let it be transported that much.

Lia elaborated upon storage concerns, stating that sacrifices are likely necessary as large instruments accumulate.

The size of the instrument is a real challenge for storage. It truly is, like you can stack eight violins in a small spot, but when you have eight upright basses for your students, which you want to have, you could lose half a room or a closet for it. And that might sound small, but when you're in the music department, it's not like you get space easily. You might lose a practice room for kids to practice to put your basses [in] because you also want to make sure no one bumps into them or nothing happens to it.

Repetitious travel increases the possibility for damage, but having multiple instruments available, especially for each student, would be extremely cost-prohibitive. Evidently, solutions are not without their own issues. Limiting transportation with better instrument availability would sacrifice space that could be used for other purposes.

Of course, an instrument of significant size needs a person of comparable stature to play it. Basses are available in different sizes but having the correct ratio of appropriately sized basses to respective students is a scenario that changes every year as students come and go. Problems such as these cannot be permanently solved; they can reappear on a constant basis.

Also, students need to have interest in playing the instrument, and teachers may play a critical role in convincing them to try. Paul stated that the bass should be attractive to students because it opens possibilities to play in different ensembles, such as jazz band, orchestra, and even concert band. However, while Randy recognizes that this may be true, the function of the bass and the caliber of its part in a score may be unattractive and unenticing.

I find it ironic in a lot of ways that the part that we place quote-unquote less musical demand on actually has way more responsibility than is evident in the function of the parts, and that has to be taught to young players so that they understand that that's their role and they don't get the fancy melodies all the time in the music, but that their part is hugely important in terms of all of those inner elements of music.

Here Randy articulates that the bass has immense importance in the ensemble, but student musicians may not understand that and find their responsibility boring and unfulfilling. For this same reason, Lia briefly mentioned that she sometimes allows bassists in her ensembles to play rock music basslines during downtime, but if not appropriately managed, this can interrupt a rehearsal. Regardless, students should feel fulfilled and engaged by the educational repertoire because that is the main focus of their presence and participation. So, in the case of the bass, its importance and grandeur may be conflicting for the interest of a student musician.

Randy and Lia recognized issues created by amplification and electronics as well. Both shared that the presence of an electric/amplified instrument in an otherwise acoustic ensemble (such as a concert band) can be a challenge for attaining balance and blend. Lia went further and stated that amplification concerns have prevented the string bass from even being present in a jazz ensemble. The instrument requires not only an amplifier, but also a pick-up to transfer the sound signal to the speaker. Because students do not always have these tools, Lia has substituted with the electric bass. Hence, in this scenario educators would need to rely on students who own electric basses as well, or at least have one available through the school. Now the bass becomes even more problematic because it exists in different physical forms applicable in different settings. There are possibilities and options, but they are not necessarily universally applicable. An unamplified acoustic bass is a real issue for a jazz big band, but an electric bass that cannot be bowed is largely useless to an orchestra. So, to relate back to previous bass-specific issues, instrument availability is far more complicated than numbers alone.

Finally, David recognized one final challenge that has emerged because of musical development and evolution. As new musical trends are born through innovation, the capabilities of the bass expand, and while this can be the source of excitement to attract bass players, it is also another factor that educators should be ready for.

I think during the period of time that I've been active as a teacher, there's been a lot of changes in pedagogy and in the role of the bass, and both [are] reflected in education and in student desires - for what they want to be able to do with it. During all this time we had the emergence of, say,

Jaco Pastorius, and various other artists who changed the role of the bass in our culture - pop culture and jazz culture.

And these get factored in when you're teaching.

New instrumental functions can be new sources of inspiration for students, but if educators want them to be attracted to an instrument, they must be ready to help them satisfy desires and goals. Additional possibilities are closely tied to mounting challenges, meaning that the development of effective education is never done. As each factor presents itself, a teacher must always be ready to adapt.

Genre-Specific Challenges

The differences between orchestral playing and jazz playing present the fourth category of challenges for teachers and students. Playing as part of an orchestral bass section is vastly different from being the only bassist in a jazz band rhythm section. In addition to the physical techniques of playing (i.e., *pizzicato* vs. *arco*), the facets of swing, styles, and song forms all add to the skill expectations of a bass player. Also, bear in mind that bass players may be playing electric bass when playing in jazz ensembles. Finally, as is true with any style of music, a student must listen to it in order to learn it, but in school settings, direct experience is the main form of instruction. Because of this, student musicians have to learn a plethora of concepts through experience within short rehearsal sessions.

Discussion

The instrumentation and structures of jazz and classical ensembles are widely different. In the orchestra, several bassists play together in unison with parts that may be the same or similar to those of other instruments, namely the cellos. However, in the jazz

band, one bassist alone establishes tempo, rhythm, and harmony while working with other musicians who have similar roles, but different instruments. The jazz band rhythm section of piano, guitar, bass, and drums is a far different environment than a full double bass section in an orchestra. This alone can cause a student with experience in one to feel removed from their “comfort zone” once they enter a new setting.

David articulated an example of this notion clearly - “You can't just take a classical player and throw him in a rhythm section, put a lead sheet in front of him, and say ‘go.’ They have to understand the concept of swing rhythm, Latin rhythm, interpretation of notes, interpretation of a lead sheet.” In essence, learning a new musical style is analogous to learning a new language. The alphabet - in this case, basic music skills such as reading and technique - may be the same, but the words - or the music built from those skills - is entirely new. Students must be shown how to manipulate their skills for the purpose of creating new sounds, much like how speakers learn to shape letters into new words in another language.

Comparable to a “linguistic” understanding of new music, when asked about how to prepare students who are experienced in one ensemble for the other, Lia acknowledged and shared the struggles that orchestral students face when entering a jazz band for the first time. “They don't swing well... Sure, they're reading what's there, but they're not always thinking rhythmically as much as they are thinking melodically or harmonically.” The ability to read and understand the music is a critical first step, but the interpretation (such as rhythmic emphasis and structure) changes in a new style of music. Not all of the nuances and idiosyncrasies are easily conveyed on standard music notation, so a conceptual understanding of sophistication is necessary.

As a measure to alleviate the difficulties of new environments, students should be taught how to work with the other instrumentalists. In the jazz band, the orchestral bassist must adapt to playing synchronously with a drummer, not other bassists playing the same part. These instrumentalists must learn how their own independent roles coalesce and integrate with one another, and that requires time and a visceral, felt experience. Lia detailed the necessity of giving these bassists and drummers the chance to work together, saying:

I try to have them work out their charts together so that the bass player can hear when the kicks between the bassline and the drums link up, when the piano player links up with them, what the guitarist is doing, so, I try to point out their role a lot more. I try to get them to listen to who they're playing [with] rather than everybody.

All the different roles sounding within a jazz ensemble can be overwhelming for students, so it is certainly important to simplify and direct focus. David provided development upon Lia's ideas of instrumental connections when he described how there are also different sub-relationships within a rhythm section. The bass and the piano/guitar provide harmony, the bass and drums provide rhythm, and the drums and piano/guitar accentuate rhythmic structures and ornamentations in the harmony. In order to recognize and become actively proficient in these relationships, students must learn to focus and directly experience them. David continued, elaborating upon how these facets can only be learned through direct experience. Learning to establish a feel within a rhythm section

cannot be learned merely through lecturing or verbal descriptions, it must be specifically learned by familiarization through physical experience.

Not all students in a section may be at the same stage of proficiency, which may cause complications for steady progress. Randy explained that difficulties can be intensified when not all participants in the group share the same background knowledge about the corresponding style. If students are not at similar proficiency levels, time must be spent on establishing a common foundation so that instruction can benefit everyone with equal opportunities for progress.

The first thing to do is for everyone involved to establish the roles of the different players in the ensemble, and do a ton of listening so that they become familiar with the style. Ingraining the music first is my philosophy of how to transition students into that genre. So, listening not just to their own instrument, but to the sound of the whole ensemble, and then breaking it down into the function, and then letting the function and the musical demands drive whatever technical pedagogy needs to happen.

By offering opportunities to listen, the students would be able to observe examples of how they should play, and if everyone has that foundation, they could all direct their time and effort in rehearsal towards a specific goal. In order to maximize results in the least amount of time, students should not be left without a clear example of what they are trying to achieve. To relate back to the difficulties Lia shared, if an experienced orchestral student is to learn how to swing, they should first be shown

exactly what swing is. This is why Randy's emphasis on listening is so critical. In connection to the previous language analogy, it would be near impossible to learn a new language without ever hearing it.

Hence, another necessary factor in learning to play the music is indeed listening to it. David was sure to articulate that music cannot be effectively learned without knowing the characteristic sounds of a style. If a student is familiar with the sound, they will be much more likely to reproduce it because they have a model/example. Again, this harkens back to the language comparison. Students need to be shown examples; giving descriptions and explanations does not capture nuance and clarity in the same way that experiential learning does.

Lastly, in at least the case of the double bass, learning one style of music can serve as the foundation for essential basic skills transferable to other contexts. In the scenario of private pedagogy, David explained that all his students learn to play classical music in their lessons because this study develops skills that are critical in other styles of music that a student may show interest in. While this study does not primarily focus on the context of private lesson pedagogy, the methodology of using one musical style to develop a foundation for another is certainly worth noting. David explained with the following:

I don't negotiate as to what the student wants to learn because I feel that if you're going to play the upright bass, everybody has to play classical. Styling, you have to learn the traditional method because that can be transferred to whatever style you want to learn. You learn the technique

and then you place that in whatever style that you want to play.

David uses a focused foundation in classical music because it is versatile for the student. If a student is interested in jazz music, a background in classical study will familiarize them with instrumental technique, intonation, literacy, etc. By providing a targeted basis, David ensures that his students are ready for a variety of opportunities. So, for the ensemble director, it is worth considering that students should experience as many scenarios as possible because skill development is transferable. Thankfully, in the case of bassists, this may happen naturally because David noted that in educational settings, a jazz bassist is often formed out of someone with a classical background.

Chances are, if they've had the training, it was in classical music. So, they probably have already had exposure through their studies. ... But for a jazz bassist, chances are that they've had orchestral studies already, so they should already know how to be able to fit into an orchestra.

David's statements reveal that a jazz bassist may likely have a background conducive to orchestral playing, and that should be reassuring for ensemble directors. However, he clarified that the jazz-focused bassist is still likely to be less proficient in the orchestra than the orchestra-focused bassist, but nevertheless functional. In summary, bass pedagogy may naturally lend itself to multiple styles, and this should be helpful in school settings regardless of a student's individual focus. Versatility, however developed it may be, is often advantageous.

Summary and Conclusions

In summary, this study revealed four distinguished categories of challenges that public school music educators at the secondary level face when directing ensembles with string bass students: teacher expertise, instructional, bass-specific, and genre-specific. Past literature has traced the existence of some of these, mainly those pertaining to teacher expertise and the instrument itself (Warner, 1958; Turetsky, 1960; Hurst, 1985; Cross, 1989). Other authors have recognized the considerations caused by the development of new musical genres (Aaron, 1996). Through the interviews that the researcher conducted in this study, present-day music educators have revealed a plethora of information that responds to the challenges of bass education.

The most emphasized solution for these challenges was private instruction with an instrumental expert. If bass students study privately outside of the school curriculum, then some of the demands and pressures placed upon ensemble directors would be alleviated. These students would receive instrument-specific guidance and feedback in an environment that focuses directly on them, which would allow directors to focus on the development of musicianship for the entire student body rather than individuals or small groups. So, solving issues of teacher expertise also benefits the usage of time in rehearsal and other instructional considerations. This solution, however, does not suggest that one-on-one study absolves directors of responsibility for instrument-specific pedagogy because students rely on them for feedback and guidance throughout rehearsals. Ensemble directors must be prepared to help their students in whatever ways are necessary to reach educational goals. Further, there are barriers to involvement in private pedagogy, such as teacher availability, affordability and funding, scheduling, and student

interest. Private lessons for students are an opportunity that should be capitalized on whenever possible, but may not always be feasible due to funding and student interest.

If the student does not take lessons or does not have the motivation to practice *and* the director cannot pay sufficient attention to them in rehearsal, then the student may fall behind and perhaps depart from the program. If the student stops participating in music, the number of people playing the corresponding instrument dwindles, and consequently the same problem is exacerbated because the director will again have to distribute attention to the majority. Bass students are perhaps among the most susceptible to this danger because it is recognized that there are naturally fewer bassists in ensembles regardless of additional challenges.

Aside from the main recommendation of private study, participants shared other strategies for addressing the variety of challenges as well, but like private instruction, they may not always be readily applicable. Scheduling, peer mentoring, professional examples, technological resources, learning style accommodation, student motivation and interest, instrument and equipment availability, storage availability, and all the other considerations are impacted by the setting of each school and student diversity. Music teachers must consider each challenge, solution, advantage, and disadvantage in their music classroom. The interviewees make it clear that plausible remedies are left to the discretion of the educator. Unfortunately, there are not any universal solutions, but with every discovery, more chances and opportunities arise.

Future research may uncover new challenges and solutions that were not discovered in this study, as the content chronicled herein is not exhaustive. Similarly, it will be necessary to investigate and measure the success of solutions that were offered by

the participants in this study. Furthermore, future scholars should study the origins of related challenges to bass education and why they persist. For example, this researcher does not have an answer for the question of why bass students are so few in number. The scarcity inspired this study, but why does it exist? Do few students choose it because they know they may receive less attention as a result? If so, these issues may be cyclical.

In relation to cyclical problems with small numbers of bassists, further studies may investigate the interconnections that the challenges and solutions discussed here have with student retention rates. If bass students stop participating in music, the number of people playing the bass dwindles, and consequently, even less attention will be paid to the bass section. These students are perhaps among the most susceptible to this danger because it is recognized that there are naturally fewer bassists in ensembles regardless of additional challenges.

This researcher hopes that the information gathered in this study will provide non-bassist teachers with helpful strategies for the effective instruction of bass students who will likely use different musical skills in different ensembles. He also wishes that bass-playing instructors may revisit some of their solutions to typical challenges. In either case, educators will need specific expertise, resources, strategies, and techniques in order to ensure the success of their students. With the categorization of different challenges and solutions, educators will be increasingly able to identify their own needs and refer to this document for applicable information and strategies. Ultimately, the insights chronicled herein should contribute to music teachers' understandings and offer tested ideas for improving teaching practice.

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