New Perspectives on Cello Pedagogy

By

Zachary A. Preucil

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This written project is approved by the following members of the Final Oral Committee:

Uri Vardi, Professor, Music
Sally Chisholm, Professor, Music
David Crook, Professor, Musicology
David Perry, Professor, Music
Sherry Wagner-Henry, Faculty Associate, Bolz Center for Arts Administration

I. ABSTRACT

This research project seeks to demonstrate the different ways in which cello pedagogy can be taught within a performance-based curriculum and establishes models by which future courses may be designed. Part I presents a survey of four pedagogy courses and the methods of the cellists who teach them: a low-strings pedagogy course taught by Prof. Cornelia Watkins at Northwestern University in Evanston, Illinois; a cello pedagogy course track taught by Prof. Paula Kosower at DePaul University in Chicago, Illinois; an independent study in cello pedagogy taught by Prof. Uri Vardi at the University of Wisconsin-Madison; and a course track in the Suzuki Cello Method taught by Abbey Hansen at the Cleveland Institute of Music in Ohio. The content of each course is presented in depth, followed by an analysis of its key elements. Additionally, content from the author's interviews with each pedagogue is included to provide greater context and details regarding curricular decisions. After the presentation of all four courses, the author presents a comparative analysis, noting how each pedagogue managed to incorporate common elements despite differing educational environments and course parameters.

Noting the elements that have made each course successful, the author presents his own model for a one-semester pedagogy course in Part II. This part, which reads as an annotated syllabus, takes inspiration from the surveyed courses and presents research on a variety of approaches to the teaching of fundamental cello technique, as well as research on the teaching of expression through improvisation, psychological strategies for performance and student mental health awareness, and practices for studio development, integration of pedagogy within performance programs, and online teaching. The purpose of this section is to present a relevant,

substantial course model that provides a fresh perspective on the potential of cello pedagogy curricula.

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Third, I owe much gratitude to Cornelia Watkins, Paula Kosower, Uri Vardi and Abbey Hansen for contributing the contents of their syllabi and personal commentary to the first part of this project. The dedication and passion each of you brings to your teaching is truly inspirational, and it was a privilege for me to learn from it.

Lastly, thanks to Walter Preucil for his participation in the demonstration videos contained in Part I, and to Anthony Preucil for his assistance in formatting the final version of the project.

It is worth noting that I submit this work for publication in the midst of the COVID-19 pandemic, which took hold as it was nearing completion. At the time of this writing, live concerts are impossible in many parts of the world, and the economic future of the performing arts is shrouded in a cloud of uncertainty. It is my hope that future readers might reflect on this tumultuous time in our history, and recognize that the ability to participate in and experience the simple, yet powerful act of a performance is something we can never take for granted.

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PART I. SURVEY AND ANALYSIS OF CURRENT OFFERINGS

Introduction

Conservatories and schools of music do not generally offer cello pedagogy courses. Instead, students enroll in courses in string pedagogy or general music pedagogy. Occasionally, however, professors offer cello-specific courses—sometimes centered on a particular cello method—or integrate cello-specific instruction into a general pedagogy class.

For each course presented below, the author conducted an interview with the professor to gain a complete understanding of the rationale for their course design. These dialogues are referenced within the discussion surrounding each offering. The courses presented here include one low-strings (cello and bass) pedagogy course, a cello pedagogy course offered over three quarters, a one-semester independent study in cello pedagogy, and a Suzuki cello pedagogy program. Together they provide a diverse sampling of successful models for comprehensive pedagogical instruction in the art of cello playing.

Example I

Course Title: Strings 316: Cello and Double Bass Pedagogy I&II: Best Practices, Materials, and Techniques for Beginners

Instructor: Professor Cornelia Watkins

Institution: Northwestern University (Bienen School of Music)

Course Details: This course fulfills part of the pedagogy requirement for all performance majors studying at the Bienen School. Students take the course for two quarters. The class meets once per week for two hours.

Course Objectives:

- To consider, evaluate, and practice a variety of teaching techniques for beginning cello and bass students
- To sequence skills, concepts and repertoire which optimize the flow of student learning and development

- To consider and apply the principles of excellent teaching
- To transform the college-student mindset into that of a confident teacher.

Course Projects and Grading

- Attendance and class participation/weekly assignments (25%)
- Creation of a syllabus of sequenced skills, knowledge, and repertoire (20%)
- In-class teaching demonstrations (20%)
- Observations of four beginner-level lessons, including two group sessions (20%)
- Oral book review selected from Recommended Book list, with instructor approval (10%)
- Creation of a teaching notebook containing handouts, syllabi, and other teaching materials (5%)[1]

Prof. Watkins structures her classes so that each has a conceptual discussion and practical element (e.g. student teaching demonstrations). There are in-class assignments as well as weekly readings from *Rosindust: Teaching, Learning, and Life from a Cellist's Perspective* (Watkins).[2]

Prof. Watkins begins her course by encouraging students to "think fundamentally." She takes care to emphasize the importance of introducing basic musical skills (rhythm, pitch, improvisation) in the pre-instrumental phase, putting in place the concept that there is more to being a musician than just playing. This can often help remind students of their own beginner experiences and take them out of the "advanced playing" bubble they find themselves in at music school. Prof. Watkins finds that Dalcroze Eurhythmics exercises are helpful in achieving the above goals. She has found it beneficial to have the students watch a video involving college students participating in the exercises (and follow the instructions themselves) in order to

[1] Cornelia Watkins, *Strings 316: Cello and Bass Pedagogy I&II: Best Practices, Materials, and Techniques for Beginners* (Syllabus, Northwestern University, Evanston, IL, 2019-2020), 1.

[2] Cornelia Watkins, *Rosindust: Teaching, Learning, and Life from a Cellist's Perspective* (Houston: Rosindust Publishing, 2008).

mitigate potential self-consciousness of engaging in the activities.[3] This reminds students of their experiences "having fun" as beginners, which are often forgotten in later years. In these classes, there is considerable discussion given to strategies for group teaching, which is quite common in this stage. Prof. Watkins notes that the sessions on the fundamentals are often challenging for her students, given their constant preoccupation with advanced concepts.

The third and fourth week of class are devoted to discussions of natural motions as they relate to cello playing, and basic instrumental concepts. Prof. Watkins talks extensively about issues relating to tension release and finding freedom, as well as "hanging" and "draping" arms/hands. During this phase of the class, students begin teaching. Since it is impractical to bring in young children to teach, Prof. Watkins has students recruit their colleagues for demonstration. She has found this strategy to be generally successful.

Students also begin to observe private lessons at this time. Observations occur at the pre-college level, often taking place at the Northwestern Academy and the nearby Music Institute of Chicago. Students may observe lessons on instruments other than the cello or bass. During lesson observations, Prof. Watkins encourages students to look for specific elements, such as different modes of instruction (kinesthetic, visual, aural) and experiences that make the lesson particularly memorable. They are also asked to comment on the teaching/learning environment, evidence of planning/organization on the part of the teacher, whether the lesson had "momentum" throughout, whether it was comprehensive, and if the autonomy of the student was encouraged. Students are also asked to comment on any evident elements of the "SUCCESs"

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[3] edmtms2010, "Dalcroze Eurythmics Exercises," January 24, 2010, YouTube video, 7:42, https://www.youtube.com/watch?v=RXB67nHnty0.

model which Watkins adopts from the book, *Made to Stick* by Dan and Chip Heath.[4] These elements are **S**imple, **U**nexpected, **C**oncrete, **C**redible, **E**motional, and **S**tory, which if present are likely to foster particularly effective experiences.

During the fifth week of class in the most recent term (Fall 2019), Prof. Watkins invited Avi Friedlander, head of the Suzuki program at the Music Institute of Chicago, to give a presentation on the Suzuki method. This presentation involved an overview of the Suzuki philosophy, methodology, components of a typical Suzuki lesson, and information on obtaining teacher training through the Suzuki Association. The goal of this session was to introduce students to Suzuki and inspire them to pursue specialized training in the method if desired.[5]

Week 6 involves more in-depth discussions of left-hand setup. In a divergence from common practice, Prof. Watkins does not apply tapes to students' fingerboards for accuracy of intonation. She will instead draw pencil lines on the fingerboards, but tell the students that once they rub off, the notes must be located by ear. She has a very successful means of teaching finger placement aurally, often involving the use of harmonics. Prof. Watkins teaches first and fourth positions before second and third. She also frequently discusses the effects of sympathetic vibrations (i.e. having a student playing a low "D" and observing how the upper strings resonate in response). An oral book review for students is also due at this time. Students are given a variety of literature (philosophical works on pedagogy, cello/bass-specific technical treatises) to choose from for this purpose.

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[4] Chip Heath and Dan Heath, *Made to Stick* (New York: Random House, 2007).

[5] The opportunity to obtain registered Suzuki training within a performance or education degree program is exceedingly rare. This topic is explored further in the portion of this section featuring Abbey Hansen at the Cleveland Institute of Music.

The seventh week of class involves discussions on strategies for motivating student practice. Prof. Watkins emphasizes that it is too easy to assume students/parents are comprehending the content discussed in lessons; it is vitally important to solicit student feedback, asking them questions such as "How will you practice this?" "What is the purpose of this exercise?"--and so on.

During the eighth week of class, Prof. Watkins invites bassist Caroline Emery to give a presentation. This is an example of how Prof. Watkins has found a way to ensure that the bass students in her class receive instruction specific to their instrument (there is no specific bass pedagogy course offered at Northwestern). Prof. Emery, who teaches at the Royal College of Music, is regarded as one of the foremost contemporary bass pedagogues.[6]

In week nine of the course, Prof. Watkins addresses additional left hand issues encompassing extensions, shifting, and vibrato. She often uses harmonics in the process of teaching shifting to encourage smooth, fluid motions, mitigating the common tendency for students to exert undue pressure on the strings. In teaching extensions, Prof. Watkins merely instructs students to "point back" with the first finger while keeping weight centered on the second finger.

At this point in the class, which is now reaching the end of the quarter, Prof. Watkins has students produce a "progressive syllabus", which calls for students to develop their own steps for starting a beginner, essentially answering the question, "What does a student need before they touch the cello?"

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[6] "Caroline Emery," Royal College of Music, accessed February 24, 2020, https://www.rcm.ac.uk/strings/professors/details/?id=01261.

The final assignment of the quarter is for students to simply submit a "teaching notebook", which is essentially a compilation of teaching materials and resources distributed in class. It is Prof. Watkins' hope that this might represent a future resource for students.

The second quarter of the class primarily draws content from the book Prof. Watkins co-authored with Laurie Scott entitled, *From Stage to Studio.* Weekly topics, based on the text, address basic teaching principles, sequential teaching, the fostering of student independence, the teaching of technical and musical concepts, and student practicing. Prof. Watkins devotes a class to a discussion of teaching the Bach cello suites, which often proves challenging for beginning teachers (especially when working with younger, less sophisticated students). Prof. Watkins also includes a session on establishing a private studio, encouraging students to be entrepreneurial and create their own teaching opportunities. Accordingly, recommended reading for the semester includes *Beyond Talent* by Angela Myles Beeching, *The Music Teaching Artist's Bible* by Eric Booth, *The Savvy Musician* by David Cutler, and *It's Not (Just) About the Gig* by Dana Fonteneau.

A final assignment asks students to talk to one of their former teachers to learn more about what they were like as younger students and gain insight into their teacher's experiences (i.e. what is rewarding about teaching, did they always think they would teach, etc.) The goal is for students to gain an understanding of how teachers think.[7]

[7] Cornelia Watkins, interview by author, February 23, 2020.

Watkins: Key Elements and Analysis

Watkins' class demonstrates how a general pedagogy course can be adapted to provide students opportunities for instrument and method-specific instruction. She accomplishes this by collaborating with local teachers for observation opportunities and bringing in guests, such as Dr. Emery and Avi Friedlander, who specialize in other instruments/methods. She also strikes an appropriate balance between conceptual/theoretical discussions and practical application, keeping both elements at work throughout each quarter. Additionally, her lectures on the business side of teaching and encouragement of students to develop their own portfolio materials give students practical tools necessary for success as professional teachers.

As a private teacher, Prof. Watkins' pedagogical style is characterized by a continuous emphasis on fundamentals, encouragement of student feedback and autonomy, an attention to different modes of learning and instruction, and lesson flow/structure. While not a teacher of the Suzuki method, she does place a significant emphasis on aural skills from the earliest stages of student development (especially when it comes to finger placement) and actively inspires students to think deeply about the meaning of the music they are creating and sharing with their audience. Her overall approach, like the course itself, can best be described as flexible, adaptable, and holistic.

Example II

Course Title: APM 384-102 & APM 486-102, CELLO PEDAGOGY I, II

APM 386-102, CELLO PEDAGOGY III

Institution: DePaul University School of Music

Instructor: Dr. Paula Kosower

Dr. Paula Kosower is the instructor of Cello Pedagogy at DePaul University, where Cello Pedagogy is offered every other year in alternation with Cello Orchestral Repertoire. The Cello Pedagogy course is spread over three quarters, and the content for each will be presented here. Both undergraduate and graduate performance majors at DePaul are required to take Cello Pedagogy, and are in class together. Dr. Kosower remarks that this mix of levels has proven useful since the undergraduates can learn from their graduate colleagues who have often already had teaching experience, and the graduate students have an opportunity to address concerns and/or questions that have arisen within those experiences, as well as evaluate the skills of their less experienced colleagues. Occasionally, Dr. Kosower has had some music education majors enroll in her classes, but the class generally consists of performance majors. Dr. Kosower would support the creation of opportunities for education majors to receive more specialized instrumental instruction, considering that students frequently lack exposure of this kind and subsequently experience some confusion in their own teaching. It would be ideal if this type of instruction was more accessible to education majors.

Dr. Kosower has taught pedagogy at a variety of collegiate institutions and has observed that some students with a strong focus on performing do not seem to appreciate the value of

pedagogy courses. It appears that this might be a common issue when pedagogy is required within a competitive performance program. Dr. Kosower makes a strong effort to demonstrate the benefits of the class to these students, but also recognizes that her impact is limited and that it is only when students enter the professional field that they fully recognize the importance of having pedagogical skills. She remarks that it only takes a couple of students with a dubious attitude to detract from the class experience for everybody, which is obviously frustrating. On a more positive note, she has had some students start the class doubting their ability to be an effective teacher, but complete the class with increased confidence in their skills. Overall, the majority of students seem to recognize the many benefits of taking pedagogy.

Cello Pedagogy I

The goals for Cello Pedagogy I are as follows:

- Describe and demonstrate in detail the primary stages of cello technique and development (posture, bow hold, bow arm, left arm, and hand)
- Create lesson plans for beginning level students, both children and adults
- Identify students' various learning styles and demonstrate corresponding teaching techniques for use with children
- Discuss an assortment of teaching materials, resources, and repertoire
- Compare and contrast the Suzuki methodology with other methods and repertoire
- Demonstrate your understanding of the following qualities of effective music teachers, including but not limited to: implementation of an efficient lesson structure, the detailed analysis and implementation of the lesson materials, the ability to demonstrate technical

and musical points, the capacity to effectively communicate with both the student and the parent(s), and the ability to evaluate one's own teaching strategies and performance.[8]

The grading breakdown is as follows:

- Class Attendance and Participation (40%)
- Written assignments (40%)
- Final Project (20%)

Dr. Kosower remarks that constructing a pedagogy course feels like "reaching into thin air" because there is no ultimate textbook, and the nature of the course will largely depend on the needs of the students in question and the resources available to them. However, she has found it beneficial to assign various readings throughout the class. Texts for Cello Pedagogy I, II, and III include Potter, *Art of Cello Playing*; Mills, *The Suzuki Concept: An Introduction to a Successful Method for Early Music Education*; Bloom, *Developing Talent in Young People*, and Walden, *One Hundred Years of Violoncello*. She will also assign videos of lessons and performances to be watched prior to class and will use class time to engage in discussion on the content of that media. Additionally, Dr. Kosower requires students to maintain a binder with all class materials, which they might use as a resource in the future.

During the first week of class, Dr. Kosower discusses points that should be addressed when a beginner starts lessons, including developing a practice routine, setting expectations, and basic sitting position/set up for the instrument. To apply these points, she asks students to show a

[8] Paula Kosower, *Cello Pedagogy I* (Syllabus, DePaul University, Chicago, IL, 2018), 1-2.

colleague with no cello background how to hold the instrument properly, document the results with a video recording or photograph, and write a summary of their experience.

In the second week, Dr. Kosower addresses bow hold set-up, requiring a similar assignment where students teach a non-string player how to hold a bow. Dr. Kosower believes the mechanics of the bow hold and bow arm are among the more difficult aspects of teaching the cello; if the bow arm is not functional, the ability of the left hand is rendered insignificant, since the bow is what is producing the sound. Dr. Kosower indicates that her approach to teaching these skills is inspired by the approach of Dr. Tanya Carey,[9] having students begin by finding the shape of the bow hold with the hand only, then having them hold a soft object. This counteracts a tendency to grab the frog and become tense. When finding the bow hold, it is advantageous (especially for young children) to "hang" the hand at the frog with the bow hair facing outwards, before finding the "bump" of the frog with the thumb and subsequently setting the bow on the string, with the teacher's guidance.[10] Additionally, Dr. Kosower emphasizes that the angle of the thumb is of critical importance since it affects the balance of the entire hand.

In the third week of class, Dr. Kosower addresses basic left hand position. This entails formation of a circular "C" shape with the hand, a left arm at a height in line with the wrist (not dropping); finger issues including angle, placement, weight and motion; use of tapes; and the teaching of a D Major scale. Students once again are asked to demonstrate and teach these points to a non-cellist. Week four continues the discussion of the bow arm, including issues relating to bow track, control of arm weight, pronation, and keeping a bow hold in place.

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[9] Dr. Carey is a noted Suzuki pedagogue, who currently teaches at Roosevelt University and the Music Institute of Chicago.

[10] Zachary Preucil, "Finding the Bow Hold (Dr. Carey's Approach)," April 19, 2020, YouTube video, 0:56 https://www.youtube.com/watch?v=a770at9deug&feature=youtu.be.

In the fifth week of class, Dr. Kosower introduces examples of beginning repertoire from Book 1 of the Suzuki cello method, covering the first nine pieces in the book. In addition to Suzuki material, Dr. Kosower also uses the "Solos for Young Cellists" series by Carey Cheney, technique books by Richard "Rick" Mooney, a scale book by Julius Klengel, and the "CelloTime" series by David and Kathy Blackwell for younger students. As mentioned above, she also requires that students in her classes read articles on the Suzuki method. While DePaul students taking Dr. Kosower's class cannot register Suzuki training with the SAA since Dr. Kosower is not a teacher trainer,[11] she does encourage them to pursue that training if they desire, and some have done so over the years.

While Dr. Kosower spends class time explaining the primary tenets of Suzuki, including teaching through imitation and the benefits of memorizing repertoire, she asks students to find a non-Suzuki piece as an assignment (typically from the material referenced above) and provide an analysis of its primary teaching points. As an additional directive, students are asked to compare/contrast their selection with the Suzuki pieces discussed in the class.

Once students have gained an understanding of the foundational elements of playing, they begin teaching their classmates to demonstrate that understanding. Critiques are made by peers and Dr. Kosower. Lesson observations outside of class also begin at this time. In this area, Dr. Kosower has found that it is most feasible for students to observe her own teaching, as it can be an imposition on other teachers if pedagogy students are frequently attending their lessons. However, Dr. Kosower has observed that private students respond differently in lessons that are

[11] There is no certification process for Suzuki training, but the Suzuki Association maintains a record of training units taken by individuals, referred to as "registered" training. This training can only be registered if it is taken with an SAA-approved instructor.

observed and/or video recorded and aims to keep observations of any one student to a minimum. She has accumulated a substantial library of teaching videos that can also be used for student observations, thus preventing an excess of pedagogy students in her lessons each semester.

On some occasions, Dr. Kosower's private students have visited the pedagogy class to be taught by the students, which has proven effective. However, these were atypical cases where the students in question were not in school (e.g. an adult student and a homeschooled student). Dr. Kosower would like to create more opportunities for students to get practical experience teaching various age and ability levels, but this can be difficult as she is drawing from her own studio, which doesn't always have an equal representation of these levels.

In observation reports, Dr. Kosower encourages students to make thorough comments, noting both positive and negative elements and offering predictions as to what progress should transpire in future lessons. She asks that these reports be a minimum of one page in length.

The seventh week of class continues with Suzuki Book One repertoire, and students are again tasked with finding a piece of a similar level to analyze and present. The eighth week involves additional in-class teaching practice with colleagues, as well as a presentation of the non-Suzuki repertoire the students have analyzed over the past couple weeks. With the quarter coming to a close, Dr. Kosower addresses non-Suzuki method books (such as the material mentioned previously), reading (utilizing the popular "I Can Read Music" book by Joanne Martin), and issues related to student practice. In this area, Dr. Kosower expresses that it is important to be conscious of how students are perceiving their progress. Often, she will inherit students who have been unable to progress from a particular Suzuki or other method book and find themselves discouraged. She believes it is important to maintain student interest by

assigning non-Suzuki pieces, and finding ways to make lessons enjoyable for each student; after all, the goal of teaching is not necessarily for students to become professional cellists, but to have a rewarding musical learning experience.

For the final project of the quarter, students are asked to choose a pedagogy topic and explore it, culminating in a presentation to the class. Recently, Dr. Kosower added a multiple-choice exam as an extra component to final evaluation. She found this to be helpful to her as an instructor, as the results clearly demonstrated what students were (and were not) getting out of the class. Adding a new component is not unique for Dr. Kosower, who emphasizes that her syllabi have changed, and will continue to change, over time as she is constantly adapting to the needs of a given class. For example, some graduate students may only be able to take the class for a quarter, so she will need to provide more information in that quarter than she would have otherwise.[12]

Cello Pedagogy II

The goals for quarter two are as follows:

- Describe and demonstrate in detail the intermediate stages of cello technique and development, including but not limited to the main principles of: shifting, vibrato, thumb position, bowing techniques and fingering/bowing choices.
- Create lesson plans for intermediate level students, both children and adults (lesson material selection including scales, etudes, repertoire, etc.)

[12] Paula Kosower, interview by author, February 29, 2020.

- Identify students' various learning styles and demonstrate corresponding teaching techniques
- Discuss an assortment of teaching materials, resources, and repertoire
- Compare and contrast the Suzuki methodology with other methods and repertoire
- Demonstrate your understanding of the following qualities of effective music teachers, including but not limited to: the implementation of an efficient lesson structure, the detailed analysis of the lesson materials, the ability to demonstrate technical and musical points, the capacity to effectively communicate with both the student and the parent(s), and the ability to evaluate one's own teaching strategies and performance.[13]

The second quarter continues the exploration of the Suzuki repertoire with the second book in the cello method. As this is the stage in the Suzuki sequence where shifting is introduced, shifting principles are discussed accordingly within the first two weeks of class. As a supplement to the Suzuki repertoire, Dr. Kosower presents "Control Exercises" from Janos Starker's *An Organized Method of String Playing,*[14] which is a popular vehicle for practicing different types of shifts (entailing various combinations of old finger, old bow, new finger, new bow).[15] Following the shifting unit, Dr. Kosower addresses vibrato principles, emphasizing the

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[13] Paula Kosower, *Cello Pedagogy II* (Syllabus, DePaul University, Chicago, IL, 2019), 1.

[14] A student of Mr. Starker's during her undergraduate and graduate studies at Indiana University-Bloomington, Dr. Kosower is an authority on his teaching methods.

[15] These are common terms used to refer to the mechanics of shifting on the cello, with "old" indicating the finger or bow one has already been utilizing and "new" referring to a change in finger or bow. "Old" shifts tend to be cleaner, disguising the shift, while "new" shifts create a more obvious connection within the interval at hand.

proper arm motion, adequate finger flexibility and practice techniques such as "sliding' on the fingerboard, using objects such as a rubber band or ball to help students experience the proper motion, and practicing "slow" vibrato with a metronome which can produce progressively faster speeds. Students also read a technical explanation of vibrato in *The Art of Cello Playing*.

The vibrato discussion is continued in the following week as well as a discussion of fourth position. In contrast to the previous quarter, students are now asked to select and analyze a Suzuki piece from the third method book instead of comparing/contrasting with Suzuki as before. Subsequently, Kosower discusses fifth, sixth, and seventh positions as well as teaching sonata form. An assignment in this unit calls for students to record a two-octave C Major scale with an emphasis on proper shifting and bowing technique. In the following week, like the first quarter, students present on the repertoire they have been analyzing and teach their colleagues to illustrate the primary teaching points discussed in recent classes.

Dr. Kosower's subsequent assignment is particularly intriguing: students are asked to view YouTube videos of different teachers teaching the same piece (Handel's "Bourée" as arranged in Suzuki book 2) and complete a thorough comparison of the different approaches they observe. Points the students are encouraged to observe include positive and negative teaching qualities, modes of communication between teacher and student, quality of demonstration, clarity of teaching points, as well as a directive to "contrast your perspective and analysis as a trained professional cellist with an amateur's or non-musician's potential perspective",[16] ostensibly to help the students assume the mindset of the parent and student present in the lesson. This last exercise helps advanced cellists learn to explain concepts in an accessible, easily understandable

[16] Kosower, *Cello Pedagogy II*, 4.

manner. A similar assignment in the next week has students analyze different approaches to teaching vibrato, again via YouTube links. These assignments both demonstrate Dr. Kosower's view that videos are best watched outside of class so that more class time can be devoted to discussion and analysis.

The concluding weeks of this quarter are primarily devoted to additional teaching demonstrations in-class, with some discussion of non-Suzuki methods and supplemental repertoire/etudes for intermediate students. As with the first quarter, students are asked to research a pedagogical topic for a final presentation.[17]

Cello Pedagogy III

The goals for Cello Pedagogy III as outlined in the syllabus are the same as those for Pedagogy II.

The third quarter focuses less on fundamental skills and more on teaching points for different types of repertoire, as well as more practical teaching experience. Dr. Kosower begins the third quarter with an examination of studies and etudes for beginning thumb position. This entails an overview of teaching strategies, thumb position method books, and readings from Walden, Potter, and Blum. Following this unit, Dr. Kosower lectures on essential bowing techniques including bow distribution, string crossings, anticipation, and bow changes. Dr. Kosower characterizes the motion of the bow arm as "rowing", i.e. in a similar manner as to how one might row a boat. For both thumb position and bowing units, students are again asked to

[17] Paula Kosower, interview with author, February 29, 2020.

select and analyze a piece that necessitates those skills in particular. Similarly, over the next several weeks Dr. Kosower leads class discussions and requires analyses of etudes, sonata movements (with particular attention given to form), solo Bach, and concerto movements. Students must perform the analyzed pieces from memory in class and provide explanations of key teaching points and likely challenges for students.

In addition to repertoire analysis and presentation, Dr. Kosower includes an assignment on fingering and bowing choices. The instructions call for the students to choose a passage from their repertoire that has proven difficult for fingerings/bowings and present it to the class, addressing the difficulties and discussing potential solutions.

Noting her own experience as an adjudicator of solo/ensemble competitions over the years, Dr. Kosower believes it is important for students to be prepared for judging in such a situation. To simulate this, Dr. Kosower plays different recordings of young students and asks the pedagogy students to evaluate them as if they were judging a competition. At first, only the audio of these recordings is presented. After the students convene and decide on a theoretical "winner", she shows them the videos of the students they heard and asks them to consider whether their decision would have been different had they viewed the video beforehand. She remarks that the visual element often makes a difference in our perceptions, which is certainly an important lesson.

As with previous quarters, the final evaluation for the class consists of an individual research project and presentation.[18]

[18] Paula Kosower, interview by author, February 29, 2020

Kosower: Key Elements and Analysis

Dr. Kosower takes full advantage of her opportunity to teach a cello-specific pedagogy course over three quarters. She introduces the technical concepts in a reasonably paced, logical progression and introduces students to appropriate repertoire for teaching students of all levels. Dr. Kosower is not a Suzuki-trained teacher or teacher trainer, but was taught with the Suzuki approach at the beginning of her own cello studies and encountered a substantial amount of Suzuki-based material while taking low strings pedagogy as a doctoral student at Northwestern University. She also took a class on the Suzuki method at Northwestern with the late and highly-revered Suzuki pedagogue, Gilda Barston.[19] She found that both experiences greatly enriched her own teaching and consequently strove to integrate a significant overview of the Suzuki cello method into her own pedagogy classes, given her conviction that the books provide a very logical progression of technical development. In addition to Suzuki literature, Kosower encourages her students to consider other repertoire possibilities that would accomplish the same technical goals. This seems to be useful especially since Suzuki is not always practical for students starting past the early childhood years.[20] Her inclusion of advanced literature is similarly important; not only is it practical for students to understand how to teach concerti and Bach in different ways, a study of such repertoire advances the process of technical development, allowing students to understand how each element of technique is developed to the highest levels.

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[19] Barston was one of the first Suzuki cello teachers and teacher trainers in the United States, and taught at the Music Institute of Chicago from 1973 until her death in 2016.

[20] A hallmark of the Suzuki method is teaching by ear, so that students learn music in the same manner that they learn language. Once a student is past this developmental stage, however, the mode of learning is less effective, so while the Suzuki repertoire can still be used, the ultimate approach is different.

Additionally, her requirements to have students constantly apply skills discussed in class through teaching demonstrations and analysis assignments ensures that they will have ample opportunities to hone their abilities and receive feedback. Similarly, asking students to frequently evaluate other teachers (whether they be students in the class, or instructors who have been recorded) encourages them to consider what constitutes effective teaching at different levels of development. Directives such as asking students to consider lessons from the perspective of the student and/or parent further challenge them to view the interactions objectively. Dr. Kosower also has the advantage of having a substantial private studio herself, which can be readily drawn upon for observation opportunities (although, as she has stated, she tries to keep the amount of observation within reason). Meanwhile, practical discussions about setting lesson expectations from the beginning of study and thinking like an adjudicator at a competition provide necessary additional skills for the work the students will likely be doing as professionals.

Dr. Kosower's technical background is drawn from her extensive studies with Janos Starker and Hans Jorgen-Jensen, two of the most highly-revered cello pedagogues in modern history. She appears to synthesize their approach with elementary literature, particularly the Suzuki method, to create a strong technical foundation for students from their earliest lessons. Additionally, in both private lessons and classes she is constantly striving to tailor her instruction to the individual needs of each student. This is especially evident in her characterization of her syllabi as living documents that continue to undergo transformation on an annual basis. She recognizes that the broader goal of teaching is to enrich the student as a person, and that a good teacher will give themselves permission to deviate from their usual strategies and seek creative solutions for a students' concerns.

Example III

Course: IND 799 Cello Pedagogy

Instructor: Professor Uri Vardi

Institution: University of Wisconsin-Madison (Mead Witter School of Music)

While there is no pedagogy requirement for cello students at UW-Madison, Prof. Uri Vardi offers Cello Pedagogy as an independent study for one semester. It is Prof. Vardi's view that every cellist enrolled in a performance program should have at least one semester of exposure to the teaching elements behind high-level cello playing. Most of the students taking this class are his own, but on some occasions, students of Prof. Parry Karp[21] have enrolled, and Prof. Vardi has used the class to introduce those students to his approach. If Prof. Vardi was in a situation where he had to teach pedagogy to students from multiple studios (i.e. at a larger program), he states that he would offer the class for two semesters. In this theoretical course, the first semester would consist of the content he normally teaches, introducing technical "tools", while the second would be a masterclass format in which students would apply those tools and receive feedback. Currently, there is not a need for this model, since his private students who are enrolled in pedagogy experience the masterclass format in weekly studio classes.

[21] Prof. Vardi and Prof. Karp are the only cello professors at UW-Madison.

Teaching Philosophy

Prof. Vardi defines the role of the teacher as clarifying what it is that musicians should discover for themselves. The origins of his philosophical ideas come from his experiences as a student of Janos Starker and Gyorgy Sebok,[22] in particular Sebok's concepts of teaching the student as a whole person, and the art of communicating deep emotional ideas through music. Musicians need to communicate very personal ideas to an audience and the teacher needs to help them discover what those ideas are. Musical scores contain a specific outline of ideas, outlines, and scenes which are only clues for the interpreting musician; students need to find ways to express those ideas based on their own life experience and personal perspectives. While many teachers separate the teaching of technical skills from the teaching of musical skills, Vardi states that he is a believer in "mixing"--teaching the technique from the music. The purpose of technique is therefore to allow a performer to acquire the best tools for effective communication. Teachers must take their students on a journey, helping them understand how the music "echoes" in them, and then find the tools to express it effectively. Prof. Vardi clarifies that this process does require technical training, but the technique must always be put in context with the music itself. Teachers should focus lessons on different technical skills, and convey the essence of what has been accomplished to the student.

A significant characteristic of Prof. Vardi's teaching is his desire that students understand concepts on a sensory and kinesthetic level. Sensory and kinesthetic elements are drawn from physiology, but everyone understands and experiences them differently. Understanding things physically requires feedback from a knowledgeable teacher.

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[22] Mr. Sebok (1922-1999) was a world-renowned pianist and professor at Indiana University-Bloomington.

Prof. Vardi is especially noted for his experience as a Feldenkrais practitioner, which he studied after he had already been teaching at UW-Madison for several years and before that in Israel. Although Feldenkrais principles are frequently present in his teaching, he states that his teaching bore similarities to Feldenkrais before he encountered the method. Prof. Vardi recalls a class he gave at the Juilliard School demonstrating how Feldenkrais is relevant to instrumental study, and that some of his former students in attendance expressed their opinion that his teaching style was similar to when he taught them prior to taking the Feldenkrais training. That said, Vardi does assert that his experience with Feldenkrais has developed his ideas deeper; it has become another tool at his disposal.

Prof. Vardi believes that a good pedagogy teacher should emphasize the role of *musician*, as opposed to simply becoming a technically-proficient cellist. Our ultimate goal as performers is to communicate uniqueness and individuality, and these elements need to be present constantly, regardless of the teaching subject at hand. Musical concepts cannot only be perceived intellectually, and technical concepts cannot be practiced only by "looking in a mirror." Constant awareness and sensitivity on the part of the cellist reveals what has, or does not have, a positive effect on a listener.

In keeping with Mr. Sebok's philosophy, Prof. Vardi firmly believes that one's mode of expression in daily life must be connected to one's mode of expression in performance. A performer cannot be genuine with an audience if they are not first aware of themselves. The expression must come from "inside" the performer, from mental experiences and traits.[23]

[23] Uri Vardi, interview by author, February 26, 2020.

Course Content

Because Prof. Vardi's class is very experiential-based, it contains fewer weekly assignments and more hands-on learning. As a result, the details of the course are more specifically technique-based in comparison to the other courses sampled here. Although Prof. Vardi lays out specific topics in the syllabus, many of them overlap to create a unique synthetic approach to the class. Prof. Vardi does supplement the in-class experiences with required readings from Gerhard Mantel's *Cello Technique* and Timothy Gallwey's, *The Inner Game of Tennis: The Classic Guide to the Mental Side of Peak Performance.* At the conclusion of the semester, students are asked to write a substantial paper describing all of the topics addressed in the class and their thoughts on how to best address each area in a pedagogical setting.

At Prof. Vardi's direction, the author created video demonstrations of the various exercises that are described in this section. Links to these videos are referenced following the written description of each exercise, and are also contained in the appendices to this document.

Vardi's first unit addresses "acture" or "dynamic posture". This is examined without the instrument involved, so that potentially problematic posture issues can be readily identified. When considering an ideal sitting position at the instrument, a cellist should feel a solid connection between the foot, leg, pelvis, torso, and finally, the arm. Ideally, the feet should be positioned so that the heel is an alignment with the knee. Prof. Vardi encourages a significant amount of personal experimentation to observe how positioning the feet and legs affects sound quality and production, since this will be different for each cellist. One exercise that addresses this is what Prof. Vardi calls "standing molto legato", where the student leans forward while

sitting to shift weight into their feet, and then stands up slowly while keeping their feet grounded to the floor. Subsequently, the student resumes a sitting position in a similar, gradual manner.[24]

The function of the pelvis and sit bones are also important to consider in a discussion of acture. One exercise to encourage awareness of these functions is to push into the floor with the heel to feel the connection between the pelvis and feet. An awareness of pelvic movement possibilities is also critical, especially the potential for the pelvis to move in a circular, bowl-like manner. One will find that pelvic movement has a significant effect on the shape and function of the lower back and ultimately, the freedom in shoulders and the arms. Prof. Vardi maintains that the position of the back should be found by springing upward from the pelvis as a reaction to pelvic movement. Too often, a cellist may assume their back position with no regard to the lower body, which can cause tension.

Here Prof. Vardi also addresses the role of the sit bones in shifting body weight; one will observe that leaning to the right or left affects the ability of the arms to execute necessary motions on the instrument. Prof. Vardi expresses that it is valuable to spend time becoming aware of how one naturally distributes weight between the sit bones--following some experimentation, one may observe that the side they tend to "favor" in terms of resting weight has changed. An additional step in this experimentation process is to shift weight while playing, and observe how the sound is affected.

Prof. Vardi next focuses on use of the arms. He notes the tendency for cellists to "brace" with their arms, as a natural reaction to instrumental demands--but this is obviously unhelpful. Prof. Vardi emphasizes a constant channeling of free arm weight through the bow and left hand.

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[24] Zachary Preucil, "Standing Molto Legato," April 26, 2020, YouTube video, 0:58 https://www.youtube.com/watch?v=KIiyeXAGX8Y.

Before handling the cello and bow, it is advantageous to help the student feel the free weight of their arms naturally. This can be accomplished in a variety of ways, such as having the student relax the weight of their arms into the teacher's hands, or having the teacher lift the arms from the back to develop awareness of the upper arms (where tension can often develop), and help the student sense the arms' weight.

Prof. Vardi has several exercises to help students experience efficient use of weight while playing. One left hand exercise has the student make a loose fist and rest the forearm on the cello to feel the whole weight of the arm transmitted into the fingers--one can begin with the fist on the C string and then move it across to the A string, with the shoulder and upper arm generating the movement. Upon reaching the A string, one can then assume the proper hand position for playing and feel the weight sink into the fingers.[25] A right hand exercise is to rest the right hand on the bow with a loose palm while supporting the stick with the left hand, and feel how the weight is resting on the stick. Then, while allowing the right hand to hang loosely over the frog, the teacher encourages pronation of the hand through outward rotation of the elbow and upper arm.[26] Prof. Vardi emphasizes the importance of having the student experience the connections between the upper arms and hands and advocates that the teacher deal primarily with the arms to direct attention there and away from the wrist and fingers (where a student's attention will tend to focus).

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[25] Zachary Preucil, "Setting the Left Hand Position," April 26, 2020, YouTube video, 0:39 https://www.youtube.com/watch?v=_F5Au3r271c.

[26] Zachary Preucil, "Finding the Bow Hold (Vardi Approach)," April 26, 2020, YouTube video, 0:46 https://www.youtube.com/watch?v=gOQtw9i2gQM&feature=youtu.be.

During this unit, Prof. Vardi also discusses strategies for developing a tension-free bow hold. He notes that oftentimes a teacher will inherit a student with poor habits in this area, and will need to introduce a new bow hold concept entirely. Prof. Vardi stresses that a teacher should not try to "correct" the current version of the bow hold, but rather, introduce a new habit to the nervous system. This can be accomplished by having the student hold the bow at the balance point, where they are unaccustomed to holding it and therefore less likely to revert to previous habits. Exercises such as bow crawls, and making a bow hold on other objects (such as a writing utensil), are also useful.

Logically following the bow hold discussion is a focus on the distribution of weight through the bow. Here Prof. Vardi recommends that a student participate in various physical motions with the bow arm that are similar to the motion that is required for the bowing, such as tossing a ball and observing the natural follow-through of the arm. Subsequently, with the teacher's guidance, the student can place the bow on one open string and draw a down-bow. Slowly, they create a double stop with the next string up in as natural a manner as possible (so, the double stop does not happen deliberately, but as a result of the natural pronation of the arm). The student then arrives on the next string and returns in the same manner, with the double stop transition. Finally, after repeated practice, the student may do the same motion but on one string. [27] This effectively encourages the necessary arm rotation to generate equal weight into the string at all parts of the bow via pronation. During the double stop transition, the bow arm reaches a new "plane" of motion, and the inner/outer muscle groups switch. This in turn trains the "new" muscle group to be active prior to the bow change, effectively anticipating the new direction.

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[27] Zachary Preucil, "Finding the Bow Arm Motion," April 26, 2020, YouTube video, 1:06 https://www.youtube.com/watch?v=IWAaCXxpVv0.

Prof. Vardi also discusses principles of bow change in this area. He emphasizes that one needs to allow bow length for the change to happen (obviously, one cannot get all the way to the very tip or frog and then change directions smoothly, since there is no bow hair available to do so.) At the tip, the change motion is generated by the arm naturally completing the circular motion that has been generated by the outward elbow rotation. Changing at the frog is arguably more complex since one is reaching the "bottom" of the circle and needs to keep the motion going. Prof. Vardi asks students to envision that the elbow is "melting" into the forearm and feel how the change of equilibrium is occurring. It is important that cellists feel the direct transmission of weight from the upper arm into the lower half of the bow, and that the tone is not inadvertently generated by pressing at the wrist.

Prof. Vardi also encourages students to distinguish between the "pushing" muscles ("inner" arm, used on an up-bow) and "pulling" muscles ("outer" arm, used on a down-bow). One exercise is for both teacher and student to make loose fists and push them against each other to activate the pushing muscles of the arm, and to make cupped hands and "pull" each other's fingers to activate the pulling muscles. The transition between muscle groups is visible around the elbow, which begins moving in the new bowing direction just before the bow-change in a circular manner. When done correctly, this eliminates any tension in the arm, allowing for smooth and fluid motion.[28]

In discussing the path of the bow on the strings, Prof. Vardi emphasizes that students are constantly aware of the correlation between the physical sensation of the arm and the sound that

[28] Zachary Preucil, "Bow Change Principles," April 19, 2020, YouTube video, 0:52 https://www.youtube.com/watch?v=vwyAd2XK_sU.

is being produced. One exercise he recommends is inherited from the cellist Paul Tortelier where the student places the bow backwards on the string (with the frog where the tip would normally be at the beginning of a long up-bow) and traces along the bow stick with the hand, in order to ascertain the proper motion of the arm to maintain a consistent bow track.[29]

Following the bowing units, Prof. Vardi addresses left hand issues. He advocates an arm height that is in line with the wrist and fingers, since if the arm becomes too low or high on the left side, the connection is broken between the shoulder blade and fingers. One exercise Prof. Vardi recommends is for students to move their elbow up and down while in playing position and observe where it feels the most natural. Similar to the bow arm, rotation of the upper left arm is necessary to effectively transfer the weight between the fingers. This is why Prof. Vardi prefers to refer to extensions as "rotations".

As a part of this discussion, Prof. Vardi talks about issues of shifting and finger movement. In doing so he divides the movements as occurring on different geometrical planes. The first plane is horizontal, "along the string" where shifting happens. Here Prof. Vardi takes care to emphasize the anticipatory gestures required for shifting as well as the different types of shifts and bow combinations (in the same manner as Dr. Kosower, of the Starker tradition). The second plane of the left hand is the vertical up-and-down movement of the fingers. To mitigate tendencies to squeeze, Prof. Vardi advocates taking the hand away from the cello and finding the proper position on another object. It is ideal to have a student make the hand position on their arm, so they can experience what the fingerboard is "experiencing"--and it should be done on the teacher's arm as well, so the teacher may get a clearer idea of what is going on. Another exercise

[29] Zachary Preucil, "Tortelier Bow Path Exercise," April 26, 2020, YouTube video, 1:14 https://www.youtube.com/watch?v=1cRPChvyqHA.

is to flatten one's knuckles on the left hand and then hold the fingers up one by one to encourage independence.[30]

The final plane of the left hand is the horizontal plane, involving the movement of fingers across the strings. Here Prof. Vardi characterizes the arm as the "driver" and the fingers as "passengers". A frequent impediment in changing strings is an inability of fingers to release in the process, thus imprisoning the player on the previous string. Likewise, the thumb must also follow the hand to maintain the appropriate balance. Some complications arise when crossing the string with the same finger. In these instances, it is advantageous to use the other fingers to bring it across, as well as the arm, in order to depress the new string--for example, a crossing on the fourth finger (often a point of difficulty, but necessity in playing) can be aided by moving the first finger over initially.

Prof. Vardi's next unit is an overview of left hand positions: four finger positions, three finger positions, and thumb position. Prof. Vardi advocates an aural/physical understanding of intonation early in one's studies. As one's understanding of positions becomes more developed, a teacher should encourage means of testing the position's intonation with open strings or double stops. When approaching the upper register, Prof. Vardi emphasizes that focusing on the physical sensation of the arm and fingers that generate the intonation as a unit is more advantageous than trying to micromanage the fingers. He advocates placing the upper part of the thumb on the string that the fingers are playing on in thumb position, as opposed to the knuckle.

Prof. Vardi also includes a unit on articulation, highlighting the effectiveness of drawing students' attention to articulations they make in the course of regular speech. Vowels and

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[30] Zachary Preucil, "Left Hand Flexibility and Finger Independence," April 19, 2020, YouTube video, 0:40 https://www.youtube.com/watch?v=XX99qCSx2Fs.

consonants must occur on the cello just as they occur in language. It is also helpful for the teacher to ask students what they experience physically when verbalizing articulations. A "tuh" sound requires a sharp action with the tongue; a "waa" sound is smoother and open. Cellists should approach the string with a similar awareness of how the bow attack will affect the resulting articulation, and whether what they are doing truly represents how they hear the music internally.

Prof. Vardi stresses that vibrato is one of the hardest things to teach, since it is a very personal form of expression. The teacher should take care to emphasize the generation of the motion from the arm, as opposed to the hand and the wrist. Prof. Vardi maintains that having a student interact with, and become aware of, the natural vibrations of the strings is an effective tool for encouraging the necessary oscillating motion. This can be achieved by placing the student's hand on a string and having them play a note loudly to generate discernable string vibration. Then, the teacher can guide the hand and arm in a sympathetic motion. As the motion becomes more comfortable, the idea of vibrato as a release (through the dropping motion of the fingers) should be emphasized.[31]

A final focus of Prof. Vardi's course is "Breathing and Body Rhythm", which essentially encompasses how one's breathing patterns, as well as patterns of physical motion, affect one's playing. One point Prof. Vardi makes is how the lung muscles are connected to the arm muscles, thus, if one's breathing becomes shallow (i.e. "chest" breathing), the arms will enter "bracing mode" and develop tension. Prof. Vardi also encourages teachers to be constantly curious about physical habits demonstrated by students, and to challenge those habits by having students first

[31] Zachary Preucil, "Vibrato Exercise," April 26, 2020, YouTube video, 0:56 https://www.youtube.com/watch?v=2h_NYtCXYjY&feature=youtu.be.

exaggerate the habit and then engage in the opposite motion to what they are doing. For example, if a student tends to lean forward with their head while playing, Prof. Vardi may hold their head in place, or pull it back slightly, to determine how that habit might be affecting their cellistic motions.[32] [33]

A word on presenting tactile-based instructional methods

Given the emphasis in this section on tactile instruction, it is important to note the great care that should be taken when implementing such an approach with students. Prof. Vardi stresses that unambiguous intentions are critical when physically touching a student, for both individuals involved. This may be achieved by explaining an exercise in advance, asking for a student's permission, and detailing how and why the contact will occur. It is also advisable that teachers communicate the policy of their institution regarding such matters, if applicable.

[32] Zachary Preucil, *Notes on the Pedagogical Methods of Prof. Uri Vardi*, 2017.

[33]Uri Vardi, "Advanced Cello Pedagogy," (Syllabus, University of Wisconsin-Madison, Madison, WI, 2017).

Vardi: Key Elements and Analysis

Since Prof. Vardi's class is an independent study offered generally to his own students, he has advantages that other pedagogy teachers do not. The students can engage with him in lessons to further explore the concepts introduced in their own playing and have the opportunity to observe his teaching in the studio class, thus eliminating the need for an additional observation requirement. Prof. Vardi will have students work with each other in the pedagogy class so they can practice applying the concepts with another person, and will often have graduate students teach undergraduates in his studio class as well. While there are texts required, Prof. Vardi is mostly focused on the experiential elements of technique as opposed to discussions of readings and repertoire; it seems to be his belief that if an understanding of the primary concepts is in place, a pedagogy student will be able to observe the manifestation of the concepts in other contexts.

Prof. Vardi's overall philosophy and approach is characterized by a deep curiosity about the makeup of each student, a desire to bring elements of each student's personality into their playing, a careful observation of students' tendencies and habits (which are subsequently challenged), and a view of technique as in service to the music.

Example IV

Course: Suzuki Pedagogy I-IV (MUPD 445/445A, MUPD 446/446A, MUPD 447, MUPD 448)

Institution: Cleveland Institute of Music

Instructor: Abbey Hansen

Introduction: The Nature of the Master's Degree in Suzuki Pedagogy

Abbey Hansen is a teacher trainer in the Suzuki cello method who has taught Suzuki Pedagogy at the Cleveland Institute of Music (CIM) since 2016. In this program, students pursue a dual Master's degree in Cello Performance and Suzuki Pedagogy,[34] receiving the equivalent of ten Suzuki training units over the course of two years.[35] Hansen remarks that the instigation of the program was essentially a confluence of the right people collaborating at the right time; there are only two other cello programs of this nature offered in the United States, at the University of Denver and University of Hartford.[36]

The key elements needed to make a Suzuki pedagogy program possible are adequate financial resources, qualified teacher trainers, and a vibrant Suzuki preparatory program to be utilized for observations and practicum. It is unusual that all of these elements can/will be

[34] "Master of Music in Cello Performance and Suzuki Pedagogy," Cleveland Institute of Music, accessed February 27, 2020 ,https://www.cim.edu/academic-programs/suzuki-pedagogy-program-cello/master-music-cello-performance-and-suzuki-pedagogy.

[35] This makes the process of undergoing Suzuki training much more expeditious than if it were undertaken outside of a degree program, since it is usually only feasible to take a couple units per year at summer Suzuki institutes.

[36] "College Programs," Suzuki Association, accessed February 27, 2020 https://suzukiassociation.org/events/colleges/.

present at a given institution, especially when one considers that there are not a large number of SAA-approved cello teacher trainers, hence the rarity of a degree offering like CIM's. Hansen does not believe that there is a lack of support for the Suzuki method amongst college administrations--in fact, it seems true that most administrations recognize the value of pedagogical training and exposure to the Suzuki method--it is primarily practical barriers that tend to emerge.

That said, while Hansen believes that all performance majors should have a pedagogy requirement, it doesn't necessarily have to take the form of Suzuki training. Hansen states that long-term training courses like hers should be offered at the graduate level only, since it is important that students attain a high level of instrumental ability before embarking upon a teaching career that will likely necessitate the teaching of high level students.[37] Given the predominance of the method, it is certainly worthwhile for a general pedagogy course to provide exposure to Suzuki, perhaps by bringing in a teacher trainer for a day or encouraging observations of Suzuki teaching at local programs. Organizing an "Every Child Can" (ECC) course, the first step in the Suzuki training process,[38] at one's institution could also be a useful strategy for sparking students' interest.

Conversely, Hansen believes it is inadvisable for an instructor who is not a Suzuki teacher trainer to teach the repertoire extensively within a pedagogy class, since the students in question would not be able to register training with SAA and may not gain the same

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[37] Given that the most advanced pieces in the Suzuki repertoire are major concerti, including the Haydn C Major Concerto and Boccherini B-flat Major concerto, and given the varying standards for admission amongst music performance programs, this standard seems appropriate.

[38] "Every Child Can! Guidelines," Suzuki Association, accessed February 28, 2020, https://suzukiassociation.org/teachers/training/ecc/.

understanding of the Suzuki approach as students who have taken an actual teacher training course. In Hansen's view, the best strategy for any general pedagogy teacher is to inspire students to learn more about Suzuki, and to take advantage of the many educational opportunities offered by the SAA if they desire.

Graduate students at CIM are required to take pedagogy, but they have the option of taking an instrument-specific course with an applied instructor (non-Suzuki). There is no required pedagogy for undergraduates, though Hansen would support such a requirement. However, Hansen does have some undergraduate upperclassmen enroll in her classes. Most students in Hansen's classes have demonstrated an interest in teaching. Some are merely looking to explore the Suzuki approach and learn more about it, while others have decided that it is an area of work they definitely wish to pursue. Many recognize the practical value of registering training, as most Suzuki programs will not hire a teacher who lacks those credentials. Hansen notes that approximately two-thirds of her students had a Suzuki background in their formative cello studies, so know generally what to expect.[39]

Course Content

Since the Suzuki cello sequence, like most Suzuki sequences, is quite extensive, it would seem impractical to enumerate the specific repertoire and teaching points in this course summary (and unnecessary, since that information can be readily accessed elsewhere).

What is significant to note here is how Hansen has chosen to present, and provide context to, the required material. Unlike the instructors of other courses surveyed in this section, Hansen

[39] Abbey Hansen, interview with the author, February 26, 2020.

is required to cover specific repertoire and demand that students accumulate a specific number of observation hours to meet the standards set by the SAA. Within those requirements, however, teacher trainers such as Hansen have freedom to include whatever additional materials and assignments they deem appropriate. A class like Hansen's has more potential to be adapted in this way, since it is a long-term offering as opposed to the shorter courses (typically weeklong) that are taught at Suzuki institutes. This would seem to be a key benefit of the program.

In addition to the Suzuki book and audio recording required for Pedagogy I, Hansen also refers students to Martin, *I Can Read*[40] and *Magic Carpet for Cello*; Kreitman, *Teaching at the Balance Point*; Starr and Starr, *To Learn with Love*; and Suzuki, *Nurtured By Love*. Aside from the Martin, the rest of the literature is focused on the philosophical tenets of the Suzuki method and how they have been applied by Suzuki teachers during the last half-century.[41] Hansen requires students to write reflections on the works listed above. In reflections, Hansen asks that students provide a summary of the book, discuss significant topics covered, and connect their personal experiences to the ideas addressed. She also asks that students attend the Cleveland Cello Society Workshop (which last took place in October 2019) and write a reflection on that experience.

Other assignments for Pedagogy I include:

- **Note Card Assignment:** With the intent to assist beginning students with reading, pedagogy students use a lined note card to write out one measure of music. They also

[40] Written as a companion to the Suzuki sequence, the Martin book is widely regarded by Suzuki and non-Suzuki teachers alike as an effective introduction to note-reading.

[41] The Suzuki method, while initially conceived by Shinichi Suzuki at the end of the second world war, only became widely known in the United States during the 1960s.

write out an instructions card, which could feasibly be used by the parent helping the child in question.[42] [43]

- **Parent Phone Call:** To prepare students for effective communication with prospective Suzuki parents, Hansen asks them to write out a script outlining what they would say to a parent who calls or emails to inquire about the Suzuki method and the nature of lessons. Hansen requests that students touch on aspects of the Suzuki philosophy, curriculum, and technical concepts, in addition to offering opportunities for observation (prior to the start of lessons), details about a teaching schedule, and soliciting information about the young student in question.[44]

In Suzuki Pedagogy II, Hansen assigns readings from Faber and Mazlish, *How To Talk So Kids Will Listen and Listen So Kids Will Talk*, Siegel and Bryson, *The Whole-Brain Child, 12 Revolutionary Strategies to Nurture Your Child's Developing Mind*. Students are required to write reflections in a similar manner to those in Pedagogy I. Students are also asked to research a Ted Talk related to Suzuki teaching and present its key points to the class. Besides these

[42] Since students studying the cello through the Suzuki method are often as young as three years old, it is necessary that parents are trained to become the "home teacher". This is a key element of the Suzuki approach known as the "Suzuki Triangle", symbolizing a collaborative relationship between teacher, student, and parent.

[43] It is worth noting that Hansen introduces note reading within the study of the first Suzuki book; the Suzuki method has received past criticism for starting note reading later in development, but as demonstrated by Hansen's approach (and, in fact, the approach of many Suzuki teachers), this is often not the case.

[44] Abbey Hansen, *Suzuki Pedagogy I* (Syllabus, Cleveland Institute of Music, 2019).

assignments, students are required to read two blog entries on the SAA website and an additional blog relevant to teaching and/or Suzuki. Reflections are required for each reading.[45]

In Suzuki Pedagogy III, required reading includes Suzuki, *Ability Development from Age Zero*; Sprunger, *Helping Parents Practice*; and Coyle, *The Talent Code*. Additionally, Hansen requires a research assignment where students select six websites from Suzuki programs in the United States (two affiliated with universities, two affiliated with community music schools, and two affiliated with private teaching studios) and provide information about those programs. The purpose of this assignment is for students to examine what typical Suzuki programs look like so they might be well-positioned to start one of their own.[46]

In Pedagogy IV, students are required to read/reflect on Jensen/Nutt, *The Teenage Brain, A Neuroscientist's Survival Guide to Raising Adolescents and Young Adults*; Duckworth, *Grit, the Power and Passion of Persistence*; Epstein, *Range, Why Generalists Triumph in a Specialized World*; and Young, *Playing the String Game, Strategies for Teaching Cello and Strings*. An additional in-class demonstration of points discussed in the Young selection is also required.

As this is the final course in the sequence, additional assignments are more comprehensive. A "YouTube" assignment asks students to research videos of student performances online which they feel would be adequate references for students in Suzuki Books 5, 6, 7 and 8. Students are requested to find two performances (of different pieces) per book and make comments on their findings. A more substantial, semester-long project requires each

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[45] Abbey Hansen, *Suzuki Pedagogy II* (Syllabus, Cleveland Institute of Music, 2019).

[46] Abbey Hansen, *Suzuki Pedagogy III* (Syllabus, Cleveland Institute of Music, 2020).

student to select a certain playing technique and "trace its development" through the Suzuki repertoire[47]. The paper in question is to be ten- to twenty pages long and include annotated musical examples.

A culminating event of the degree program is a lecture recital. For this event, each student selects a specific cello technique and presents a half-hour performance consisting of one piece from Suzuki books one through eighth as well as a half-hour lecture on the various literature performed and their pedagogical links. Hansen advises students to select the same technical focus they are studying for their research project. Presentation slides and handouts are required as supplementary material to the presentation.[48]

As mentioned above, students are required in each class to complete observation hours of private lessons and group lessons. As Hansen indicates, this is only possible because of the partnering CIM-based Suzuki program, where she also teaches.[49] Even with that resource, not all levels are equally represented, in which case Hansen provides videos. As the classes progress, students are also required to do their own practicum teaching of both group and private lessons, after which they are asked to submit a journal entry on their experiences for evaluation by Hansen. Their teaching is evaluated based on the Suzuki Pedagogy Descriptors, a document developed by the SAA defining what elements constitute effective Suzuki teaching. Students

[47] It is worthwhile to note here that essentially all the fundamentals of cello playing are introduced by the end of the third book, and are continued to be developed in subsequent volumes. This progression is the result of many years of experimentation and adjustment to repertoire within the Suzuki community.

[48] Abbey Hansen, *Suzuki Pedagogy IV* (Syllabus, Cleveland Institute of Music, 2020).

[49] This is easier to accomplish in short-term Suzuki institute settings, since there would be a reliable number of students enrolled in the appropriate classes.

also have opportunities to practice teaching in class (with their colleagues serving as example students).

Exams generally include a midterm and final including both written and performative elements. As is a hallmark of Suzuki, all of the repertoire is required to be performed from memory.

Finally, all students are required to be members of the SAA so that they can register their training.

Hansen: Key Elements and Analysis

Given that this cello pedagogy sequence is the primary track of a pedagogy-focused degree program and must fulfill very specific requirements, it is obviously the most comprehensive of the classes surveyed in this section. The luxury of having two years of pedagogical study, coupled with ample observation and practicum opportunities, allows for Hansen to cover all levels and aspects of cello playing in depth. These classes are also most likely to benefit students in their professional teaching pursuits, as it gives them actual credentials they can use to satisfy job requirements.

Hansen's assignments and supplementary material add breadth and context to the Suzuki material studied, encouraging students from the beginning to think broadly about how they might tailor their approach to each individual student while maintaining the core principles of the Suzuki philosophy. Practical assignments such as the "parent phone call" and program research prepare students for situations they will most certainly encounter as professional teachers, while the extensive culminating assignments challenge students to explore the many ways in which a technical element manifests amongst different levels of repertoire. The latter is not something that can be as easily accomplished outside of repertoire that progresses as purposefully as Suzuki's does. Another key element of Hansen's approach is the creation of multiple opportunities for students to receive feedback on their teaching and playing, ensuring that they possess a thorough understanding of the material in question.

While by definition these courses are exclusively focused on Suzuki, thus negating the possibility for study of alternative methods, it is evident that students emerging from this program (and even those who have opted to take the courses as non-degree students) will possess

an extensive knowledge of cello technique and strategies for teaching that technique, as well as a deep understanding of the Suzuki philosophy and their role as Suzuki teachers.

Comparative Analysis

All of the professors featured in this section teach at different institutions, under different circumstances and varying institutional requirements. Thus, a comparison of the four should not be taken as a critique but rather as an illustration of how each professor has chosen to structure his/her course so that it might be maximally effective given the context of its offering. The following table (Figure I) provides a visual representation of the similarities and differences that have resulted from these varying parameters.

Figure I. Comparison Table

Topic	**Watkins**	**Kosower**	**Vardi**	**Hansen**
Practical elements of teaching, such as administrative aspects, are discussed	X			X
Technique is addressed using specific repertoire		X		X
Observations are required	X	X	(X) - while not officially required, all students also attend Vardi's masterclasses	X
Technique is addressed in a more general sense	X	X	X	
Teaching practice is required	X	X	X	X
Observations of teachers besides the instructor take place	X			X

Texts are required, along with written reflections/ analyses	X	X	X	X
Course is required for students' degree program	X	X		X
Instructor believes course should be required regardless of whether it is	X	X	X	X
Discussion of teaching beginners (young children) included in course content	X	X	X	X
Students are encouraged to bring their own perspective/life experience to teaching	X	X	X	X
Course includes cellists only		X	X	X
Suzuki method is addressed in some manner	X	X		X
Midterm/final examinations are required	X	X		X
Course is offered over multiple terms	X	X		X
Bach cello suites are addressed in some manner	X	X		X (contained within the Suzuki repertoire)

Students are encouraged to be flexible and adapt to the needs of individual students	X	X	X	X
Course content is largely dictated by an entity beyond the teacher				X
Technical content draws from the teachings of Janos Starker		X	X	
Course contains both undergraduate and graduate students		X	X	X
Course includes a specific focus on developing musicality and expression	X	X	X	
Course includes a focus on note reading	X	X		X

Such a comparison presents some intriguing points. First, despite the difference in circumstances under which the courses are offered, all of the professors find it prudent to include the following topics/activities in their offerings:

- Teaching practice (practicum) is required
- Observations are required/affiliated with the class

- Texts (and written reflections/analyses) are required
- Instructors believe the course should be required, even if it is not
- Discussion of teaching beginners, especially young children, is included in course content
- Students are encouraged to bring their own life perspective/experience into their teaching
- Students are encouraged to be flexible/adapt to individual needs of each student

These commonalities hardly seem to be by accident. It is logical that students should be required to apply and receive feedback on the topics they have studied in class, both practically and through written reflection. Teaching beginning students, something that practically any teacher will have to do at some point (and probably should do, to test their own understanding of the fundamentals), would seem critical. Finally, all of the professors share a common belief that just as no two students are alike, no two teachers are alike either, and so teachers should be encouraged from the beginning to draw from their own experience and perspective in formulating their philosophy and approach. Encouraging freedom and autonomy on the part of pedagogy students would seem paramount for developing successful teachers.

Most of the other elements highlighted here are generally shared by two or more teachers, and the ones not sharing them often address the same idea in a different way. For example, Kosower and Hansen use specific repertoire sequences in addressing technique, but this is because they have the time to do so (and in Hansen's case, the requirement to do so), and their classes contain only cellists. Watkins and Vardi compensate for the constraints imposed by their shorter classes (and for Watkins, the mix of instruments) by discussing technique in a more general sense but with allusions/references to the repertoire. The significance of the Suzuki

method is evident in the fact that it is covered in three out of the four courses. Obviously, Hansen's class is a Suzuki class, so it is the most comprehensive in that area. It is curious to observe how both Watkins and Kosower choose to incorporate Suzuki, Watkins by bringing in a guest lecturer and encouraging observations of Suzuki teachers outside of class, and Kosower including the Suzuki repertoire as a core part of the class experience.

While specific repertoire varies from class to class, both Watkins and Kosower devote significant time to the study of the Bach cello suites, and Hansen covers them as part of the Suzuki sequence. Watkins, Kosower, and Vardi all include a focus on developing expression. Meanwhile, Watkins, Kosower and Hansen all cover note reading (likely because their classes are specifically geared towards teaching beginners at first).

Altogether, this survey would seem to indicate that creativity, flexibility and constant adaptation are critical qualities for any cellist striving to engage students in pedagogical study. In Part II, I will present my own interpretation of these elements both in terms of content and course design.

PART II. ANNOTATED SYLLABUS OF THE AUTHOR'S DESIGN

Introduction

For this theoretical course, I choose to adapt the model of most courses represented in my survey, which was a semester (or quarter) long class with one meeting per week. In this case I will follow the timeline of the UW-Madison semester, which is generally fourteen weeks long.

The grading scheme: Attendance/Participation: 10%, Written Assignments: 20%, Observations: 20%, Midterm Exam: 15%, Final Research Project: 20%. This was constructed to provide relatively equal weight to weekly work and evaluations, with most percentages figuring at 15% or 20%. A designation for nine observation hours would seem feasible, estimating the theoretical logistics of observation as well as a reasonable consideration of the time demands students would face. Students could observe more than one lesson in each "observation assignment", so there could be fewer overall assignments turned in so long as the total amount of observation time adds up to nine hours. In my research of other syllabi, I found that multiple professors required final projects which I believe are more effective for synthesizing and applying information than a topical exam--hence my decision to include it in this model.

The course objectives represent my views on what the main topics of a pedagogy course should be. Particularly inspired by Prof. Vardi's example, I would want to emphasize the importance of developing an individual teaching philosophy that governs all aspects of instruction. I also find it prudent to place a strong emphasis on the teaching of musicality as well as addressing administrative aspects of teaching and psychological aspects of performing. I will address these areas in-depth later in this section.

Course Model

CLASS 1

- Class Introduction
    - This would comprise an overview of the syllabus and requirements.
- Elements of beginner lessons: basic sitting position: "heavy feet", standing "molto legato", back position. Acture/"dynamic posture." Relationship with/role of parents, adapting approach to different ages.
    - The set-up elements here are inspired by Prof. Vardi's approach.[50] In discussing relationship with parents, I would highlight key points from Claire Bugeja's article, "Parental involvement in the musical education of violin students: Suzuki and 'traditional' approaches compared"[51] which emphasizes the role and benefits of having parental involvement in instrumental instruction from the beginning. This is assigned reading for the next class. Adapting approaches to different ages is an issue that is introduced here and touched on throughout the class as students learn various pedagogical techniques and which are more appropriate for different age levels.
- Cello sizing: some considerations.
    - Main contact points of set-up, with the base of the cello resting on the chest and the C-peg by the left ear, will be emphasized based on my own experience. This determines the appropriate size of the instrument. There is useful supplementary

[50] See Vardi syllabus.

[51] Claire Bugeja, "Parental Involvement in the Musical Education of Violin Students: Suzuki and Traditional Approaches Compared," *Australian Journal of Music Education*, Vol. 1 (2009): 19-28.

material in this area from the doctoral thesis of Tanya Carey, who presents the following measurement chart:[52]

Table 3

Determining Instrument Size

Height of Child	Cello Size
below 105 cm.	1/10
105-125 cm.	1/8
115-135 cm.	1/4
125-145 cm.	1/2
135-155 cm.	3/4
over 150 cm.	full or 4/4

- Exercises for left hand set-up: setting hand/arm position, knuckle knocks, ski jumps, set hand.
    - These are some common exercises used for set-up. Explanations can be found at http://www.cello.org/Libraries/Activities.html
- Exercises for right hand set-up: "waiter hand", thumb to fingers, "the flip" (elbow rotation), pen/pencil, "doorbell" thumb, bow crawls, set at frog.
    - This routine is of my own invention based on my experience and review of other techniques. For the "waiter hand", the student holds their right hand out flat as if they were balancing a serving platter. The next step is for the student to bring a bent thumb to touch the top joints of the fingers. As the position of the hand comes from the proper elbow angle, the student then rotates the elbow (with the

[52] Tanya Carey, "A Study of Suzuki Cello Practices as Used by Selected American Cello Teachers," (DMA diss, University of Iowa, 1979), 33.

teacher's assistance) to achieve this angle. A pen/pencil (common practice)[53] is used to simulate the feeling of maintaining the hold on the stick. I also find it prudent to introduce bow crawls, where students crawl up and down the bow using just their fingers (another common exercise) before ultimately setting the hand on the bow at the frog.

- Other beginner activities:
    - The listing at cello.org (see above) will be distributed. This is a helpful compendium of suggestions for engaging children with the instrument and technique.

Assignment #1

Each student is assigned one of the beginner exercises introduced. At the following class, students are to demonstrate and teach their assigned exercise to another student.

- Inspired by the practices of Watkins and Kosower, I find that an in-class application of the fundamentals introduced, for critique by the instructor, will be effective.

Reading: Bugeja, Claire. "Parental Involvement in the Musical education of Violin Students: Suzuki and Traditional Approaches Compared." *Australian Journal of Music Education*, Vol. 1 (2009): p. 19-28.

- Bugeja's piece is an intriguing study that compares the effect of parent involvement between the Suzuki approach and more traditional instruction. Bugeja examines the role

[53] See Kosower interview.

of the parent in lessons and practicing, and how it changes as the child ages. Ultimately, Bugeja concludes that "despite the fact that 'traditional' approaches do not define the role of the parent, some parents instinctively assume a very similar role to that of Suzuki parents"[54], and that parental involvement in all modes of instruction for pre-college students is beneficial. I find this to be a great introduction to understanding the role of parents in lessons, which is something most teachers have to contend with at some point.

Ballantyne,"Posture" from *Comprehensive Notes on the Pedagogical Methods of Leonard Rose*[55]

- Included in the appendix of Daniel Morganstern's, *Fundamentals of Cello Technique and Musical Interpretation,* this overview by noted cellist Scott Ballantyne[56] enumerates Leonard Rose's[57] technical principles, and thus the section on Posture is a fitting complement to the points discussed in class. Ballantyne spends time addressing the angle of the end-pin and the differences between a bent and straight end-pin, noting how each affects the sitting position of the cellist in question. Ballantyne advocates for the weight of the body to rest on the left side and discusses how adjustments need to be made to accommodate different arm lengths of the player in question: "All cellists should be able to play comfortably at the tip of the bow….players with short arms who have difficulty reaching the tip of the bow should not sit squarely in the chair, but rather turn slightly to

[54] Bugeja, *Parental Involvement*, 27.

[55] Daniel Morganstern, *Fundamentals of Cello Technique and Musical Interpretation* (New York, International Music Company, 2004): 48-59.

[56] Ballantyne was Leonard Rose's teaching assistant at the Juilliard school and a prominent performer in New York.

[57] Mr. Rose (1918-1984) was a highly-regarded performer and pedagogue.

the left, leaving the cello facing forward….cellists with longer arms are able to reach the point of bow more easily, but I find they are also more comfortable in this position."[58] He also addresses issues related to shoulder tension.

Class 2

- Discussion of Bugeja and Ballantyne readings
    - This discussion would logically follow up on the primary points presented and assess student comprehension.
- In-class demonstrations of beginning techniques by students
    - Opportunity for students to practice applying the techniques they were assigned in Class 1, for evaluation by the instructor.
- Beginning left hand songs: The Monkey Song, Hot Cross Buns, Twinkle Twinkle Little Star
    - These are all traditional pieces designed to help students become accustomed with left hand position and technique. Additionally, I would include a discussion of using harmonics in left-hand setup, using tapes for intonation security, and strategies for developing a loose left-hand thumb (touching the neck versus squeezing). Since this is not a method-specific course, I would not progress much further into specific repertoire, instead giving students freedom and suggestions to choose which beginning repertoire to follow.

[58] Morganstern, *Fundamentals*, 49.

- Right hand: maintaining bow hold at the frog, setting on the string, maintaining "straight bow" (at a perpendicular angle with the string)
    - Exercises recommended for maintaining the bow hold at the frog include pointing with the bow (while moving the hand), and engaging in various up/down and circular movements. Setting on the string involves exercises involving the channeling of loose weight as advocated by Vardi (e.g. wrists resting on the bow stick).
    - I find the exercises of Dr. Tanya Carey to be very beneficial in helping students feel the sensation of loose arm weight and develop a competent bow track. The following descriptions, from Carey's book *Cello Playing is Easy*, enumerate exercises I would highlight to students:

"**Cello Handshake--**the purpose of this game is to learn the feeling of a heavy, balanced arm supported by your body. This is a partner game. Have your partner stand facing you with their arms bent at the elbow and palms up (they should imagine that their hand/arms are pegs to hang a coat on). Sit facing your partner. Pretend your fingers/hands/arms are a heavy winter coat. Rest the weight of your fingers/hands/arms on your partner's extended palms (hang the coat on the peg.) Your partner needs to support your weight with their total body, free shoulders, and flexible thumb. Let your partner move your arms gently left and right, up and down, and in circles. Notice that your weight can remain the same and your shoulders are free to move with no tension. These are the same 'heavy' arms that we balance on the strings."[59]

[59] Tanya Carey, *Cello Playing is Easy: Part I - Warm-Ups* (CareyWorks Inc., 2007), 17.

"**Bounces and Dribbles**--Imagine a ball dropping on the floor. In your mind, see how the ball bounces closer and faster to the floor as it rebounds. Drop your bow onto a string at the tip. Notice how fast it bounces. Drop your bow onto a string at the frog and again at the middle. Where does your bow bounce the easiest: frog, middle, or tip? Drop the bow on the string at the middle and draw it toward the tip while it is still bouncing. How many bounces can you make? If the bow slows down or stops bouncing towards the tip, adjust the swing of your arm, just as in throwing a ball, until you can make the most number of bounces. Your Elbow, Middle fingers, and the Tip of your Bow are in ONE Plane."[60]

"**Bow Track**--Place your bow on a string. Hold the tip of the bow with your left hand. Move your bow arm back and forth across the bow as though you are playing. Repeat on all four strings to feel the changing angle….your weight is released on the underside of your arm and travels through your fingers to the string like water through a fire hose."[61]

- Introduction to the Suzuki method of instruction
    - As the course progresses to beginning repertoire, I find it appropriate to introduce students to the basics of the Suzuki method. If I were to be the one teaching the class, I would be comfortable making this introduction given I have registered

[60] Carey, *Cello Playing*, 20.

[61] Carey, *Cello Playing,* 21. This is similar to the Tortelier exercises as advocated by Vardi (see Part I), with the exception that in the earlier case the student is to hold the bow on the string at the frog instead of the tip, ostensibly for greater stability of the stick.

Every Child Can and Suzuki Cello Units 1-3 with the SAA. However, a non-Suzuki teacher may opt to invite a Suzuki teacher as a guest to make this presentation, as Watkins has done.[62]

- Essential content: History and core aspects of the Suzuki philosophy, progressive nature of the Suzuki repertoire, common misconceptions (i.e. when reading starts [63], lack of musicality etc.), how to obtain teacher training.

Videos: Paul Katz's perspective on the bow hold and tension release[64]. Watch the following videos and write a one-page summary encompassing the main points addressed in each, and compare to the approaches discussed in class.

"Bow Hold Principles - Part 1"

https://www.youtube.com/watch?time_continue=151&v=9f2AABUxrsQ&feature=emb_title[65]

"Bow Hold Principles - Part 2"

https://www.youtube.com/watch?v=wECCcnrLU48&feature=emb_rel_end[66]

"Softness is Strength"

https://www.youtube.com/watch?time_continue=108&v=mgEkvmMtA_E&feature=emb_title[67]

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[62] See Part I.

[63] Here it is advisable to cite the *I Can Read Music* series by Joanne Martin, a common reading book designed as a supplement to Suzuki.

[64] Paul Katz is currently Professor of Cello at the New England Conservatory of Music, and was cellist of the Cleveland Quartet from 1969 to 1995.

[65] CelloBello, "Bow Hold Principles [Part I]," January 6, 2011, YouTube video, 2:31.

[66] CelloBello, "Bow Hold Principles [Part II]," January 2, 2011, YouTube video, 2:26.

[67] CelloBello, "Bow Hold Principles [Part III]," January 2, 2011, YouTube video, 2:34.

- I find these videos to be good supplements to the approaches from Carey and Vardi that would be discussed in class. Having students draw parallels between these videos and class activity encourages them to observe what core principles are present amongst different approaches.

Reading: "About the Suzuki Method." https://suzukiassociation.org/about/suzuki-method/ (watch video as well)[68]

- This online article and corresponding video provides an effective overview of Suzuki, to reinforce the class presentation.

Observation #1 is due at the beginning of the next class. Attempt to observe a beginner-level lesson if possible.

Class 3

- Collect observation assignments
- Discussion of Katz videos and comparisons
- Left hand: extension and shifting principles
    - In the discussions of extensions, I will defer to Vardi's model of emphasizing the rotational motion of the left arm. I find this to be more advantageous than simply extending a finger, as it ensures the proper focus of weight.
    - In the discussion of shifting, I will draw from the treatises of Janos Starker and Steven Doane. In *An Organized Method of String Playing* Starker offers a

[68] "About the Suzuki Method," Suzuki Association, accessed February 15, 2020 https://suzukiassociation.org/about/suzuki-method.

"Control Exercise for the Connection of Positions",[69] along with a set of rhythmic variations. Starker explains the purpose of these exercises, stating that "in the control exercises on the previous page the indicated fingerings and bowings intend to develop the so-called 'anticipated' connections (shifts). The time for the shift is taken from the beat preceding the shift. Also, the finger playing the previous note leads the shift. Examples 7-8-9, however, require, with their bowing patterns, the use of 'delayed' shift. Here the finger playing the note to follow, leads the shift. The action itself is faster and starts on the next beat. Combinations of timings should be individually experimented."[70] This provides an ideal opportunity to discuss when one should shift in regards to the bow direction. The differences between shifting on the "old" or current bow and "new" or changed bow would be emphasized.

- In "Cello Ergonomics", Steven Doane[71] uses imagery to describe Mr. Starker's ideas, which can be very helpful when teaching the concepts. Doane describes the old finger shift as a "RAINBOW SHIFT - [indicating] outward rotation of the forearm" and the new finger shift as a "SCOOP SHIFT - [indicating] inward rotation of the forearm."[72] Doane offers an exercise to combine both classes of shift which is a logical follow-up to the foundational technique described by

[69] Janos Starker, *An Organized Method of String Playing* (New York: Peermusic Classical, 1961): 33.

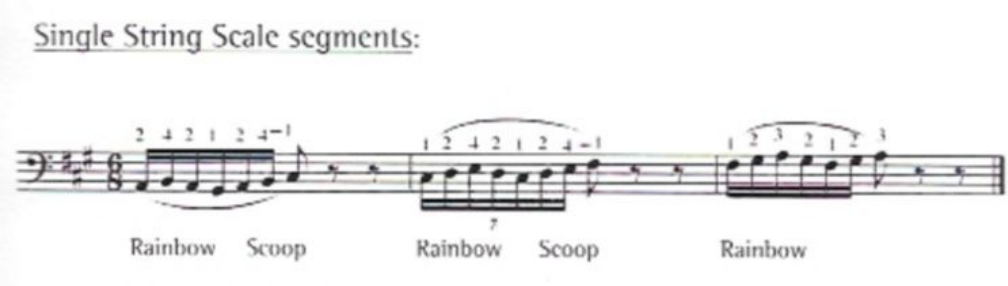
[70] Starker, *Organized Method,* 34.

[71] Mr. Doane is Professor of Cello at the Eastman School of Music, and was a student of Mr. Starker.

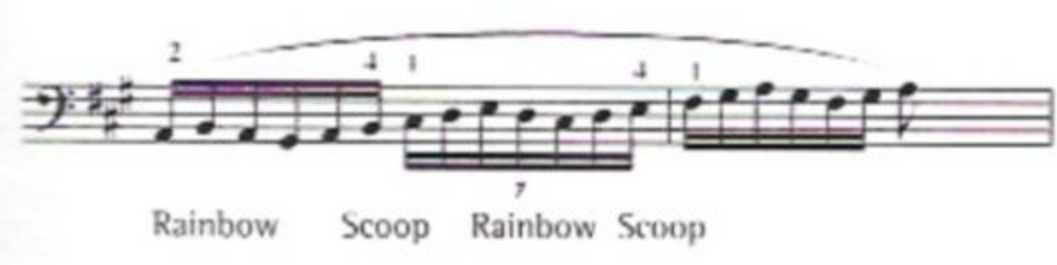
[72] Steven Doane, *Cello Ergonomics*, (London: Bartholomew Music Publications, 2006): 10.

Starker. This exercise is called a “single string scale segment”, which has labels indicating when the player should utilize either the “rainbow” or “scoop” shift.

Figure I. Single String Scale segments[73]



Doane embellishes on this exercise in the “Complete String Scale”, where he directs students to utilize the “larger supporting motion” of the torso to incorporate “active inward and outward rotation of the forearm. A freely swinging forearm should precipitate vibrato on the note that ends the segment.”[74]



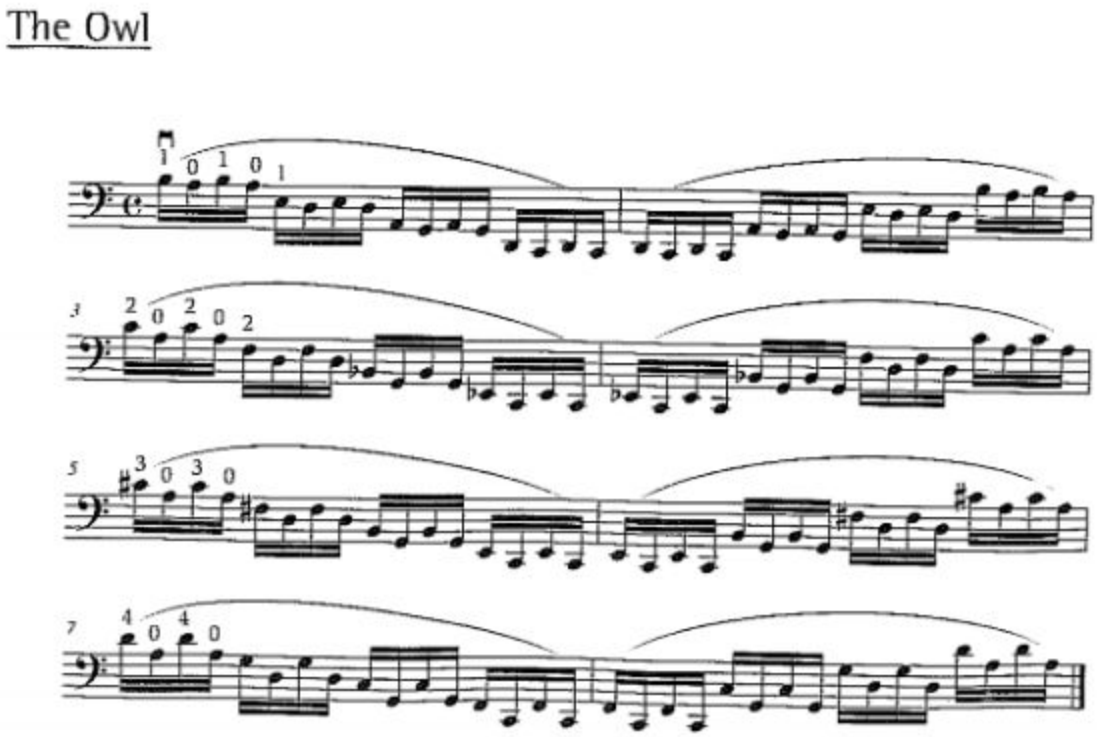
- Right hand: bow change and string crossing
    - Prior to addressing the direct mechanics of the bow changes with regards to the right arm and hand, the necessary elements of body balance and weight transfer

[73] Doane, *Ergonomics,* 10.

[74] Doane, *Ergonomics,* 10.

must be addressed. Exercises by Doane and Starker also prove helpful in this area. In "The Owl", Doane instructs students to have their feet "well 'planted', move freely from the hips" and "keep your head and shoulders level as you sweep the room with your eyes. Your eyes should lead the bow. Swing across the strings from left to right and back again. Try rocking slightly from right to left against the bow direction, feeling your weight shift from right to left foot going down to the bottom string and from left to right foot coming back up to the top string."[75]

Figure II. The Owl



This encouragement of the anticipation as instigated from larger motions in the body is critical in aiding students to feel the appropriate transfer of weight during bow changes. In "An

[75] Doane, *Ergonomics,* 4.

Organized Method of String Playing" contained in the appendix of *The World of Music According to Starker*, Starker presents an exercise with a similar aim: "The ability to apply power to the changing needs of playing high strings, low strings, high positions, and low positions requires the ability to shift the body weight without losing control and, ipso facto, balance. The following simple exercise will aid in achieving controlled body balance: Stand, place the weight of the body on the right side, lift the left leg, bend the right knee. Repeat a few times until reasonably comfortable. Repeat the same exercise on the left side lifting the right leg. Then, seated on the edge of a chair, place the right foot in the center, lift the left leg, and rise on the right foot. Repeat with the left foot. The difficulties encountered will make one aware of the lack of body control, ill-directed body weight, and the need to feel the changing balance requirements."[76]

Following these discussions, the mechanics of a smooth bow change are addressed. Vardi's exercise of beginning on a lower string (usually G), gradually creating a double-stop between that string and the next string (D), and finally arriving on the string after that, is used to encourage the appropriate arm motion. This motion is later applied to bowing on a single string. Pedagogy students will also engage in "push" and "pull" exercises-- "pushing" with a loose fist against the theoretical student's loose fist, and pulling with a cupped hand on a student's cupped hand, encouraging the student to provide resistance. Then, the individual in the "teacher" role will assist the student in feeling these pushing and pulling sensations while playing on an open string.

[76] Janos Starker, *The World of Music According to Starker,* (Bloomington: Indiana University Press, 2004): 269.

The following are the critical points of emphasis that I have gleaned from my study of various approaches to this technique, and my own performing/teaching experience:

- **The elbow rotation is what leads the bow change and the change between the push and pull muscle groups.** Oftentimes, students can become confused when they are given too many directives in this regard given the complexity of the motion, and so (especially if the student is a young child) it is advantageous for the teacher to communicate this in a tactile manner.[77] If the elbow rotation is not active, there cannot be an effectively anticipated bow change.
- **The upper arm must be in constant motion.** Many times, students will cease movement of the upper arm once they reach the tip of the bow, but this is actually where it is the most critical as it needs to generate artificial weight into the string via the right arm pronation. This is another element that is best emphasized through touch.
- **Bow changes at the frog are more complex than bow changes at the tip.** Students often will not allow the full arm weight to sink into the bow stick, thus causing the hand and wrist to compensate by pressing. With pressing of this nature, the hand will be in various degrees of tension and the bow change will not be smooth. The hand, wrist and thumb must be loose to allow for relaxed weight of the arm to generate the tone and for the appendages in question to respond naturally to the anticipation in the arm.
- **It is highly advantageous to practice bow changes just at the tip and just at the frog to focus on the specific elements required for each.**

[77] With the student's permission--see "A word on tactile-based instructional methods" in Part I.

String Crossing

- In *Cello Playing is Easy*, Tanya Carey offers a variety of exercises to encourage the proper string crossing motion which can be applied to all levels, worthy of presentation in this section. Preceding these exercises, Carey outlines the core principles of a string crossing: "Step one is to balance the weight of your arm on the string. Step two is to move your weight. Step three is to roll from string to string using the whole arm. Step four is to roll more and move quickly between strings and to skip strings. Step five is to move very quickly between strings using flexible fingers."[78] Carey also includes a directive to "balance [the bow] in double stop position. Listen for an even sound on both notes. Watch the strings so that the vibration of each string is even and at the same level of sound."[79]

Building on this foundation, Carey offers exercises designed to encourage proper arm movement as well as connection with the back. In "Rock and Roll", which is beneficial for a focus on bow path as well as string crossings, the student is to "place the middle of [the] bow on the bridge of your cello (hair side down with equal amounts of hair on either side of the bridge.) Roll the bow along the bridge from left to right and back again maintaining contact in the middle of the hair. Feel the weight, balance, and easy arm/hand/finger action supported by your body. Notice how your arm reaches out for the A string and bends back for the C string."[80] Like

[78] Carey, *Cello playing,* 22.

[79] Carey, *Cello playing,* 22.

[80] Carey, *Cello playing,* 23.

aforementioned exercises for bow path, this exercise is particularly helpful in that it directly encourages students to feel the distance between the strings by engaging with an object (the bridge) that dictates that distance.

Carey's "Handle Bars" exercise allows students to link bowing to larger muscle groups in the back. Carey instructs to "hold the bow at both ends. Rest your bow on the string as though it is the handlebar of a bicycle. Steer. Feel the ease in your shoulders and back. Let go of the bow with your left hand. Keep the bow balanced with your right hand/arm."[81]

Finally, Carey builds layers of complexity in "The Pivot" bow. As an introduction to this exercise, Carey offers her perspective on different types of string crossings:

"There are three kinds of string crossings: the whole arm (like Rock and Roll), the pivot arm, and the wrist and fingers (Spiccato/Sautille). The motion for smaller and faster bows uses joints closer to the end of your arm for efficiency. In reality, the whole arm is still involved in each kind of crossing. The pivot bow technique is excellent for skipping strings quickly and making the low strings speak quickly when the music is mostly on the A or D string."[82] Carey then presents different "levels" at which this skill can be developed, first addressing the basic arm motion (encouraging the elbow to be the fulcrum point of the arm) and then prescribing a series of exercises involving double string crossings. Carey continuously encourages a "rolling" motion in the arm and rotation of the shoulder socket. Additionally, one exercise calls for the student to play notes on the C string and D string pizzicato, simultaneously, in order to balance the arm on the "skipped string" (the G string).[83]

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[81] Carey, *Cello playing,* 23.

[82] Carey, *Cello playing,* 24.

[83] Carey, *Cello playing,* 25.

Assignment #2: Find examples of each of the following types of shifts in repertoire you have studied: **Old finger-old bow, old finger-new bow, new finger-old bow, new finger-new bow**. Be prepared to demonstrate your examples in class.

Find examples of the three different types of string crossings as described by Carey **(whole arm, pivot arm, wrist/fingers)** within the repertoire you have studied. Be prepared to demonstrate in class.

Reading: "An Organized Method of String Playing" from Starker, *The World of Music According to Starker*, p. 269-292. Be prepared to discuss in class.

- This reading comprises the appendix of Starker's autobiography. In it he reproduces a regular presentation he had given for approximately fifty years under the same title, which he describes in the following manner: "'An Organized Method of String Playing' (OMSP) is a way of thinking about music and instrumental playing. Its objectives answer professional needs: stability, power, health, maximum use of limited time, increase of confidence and avoidance of stagnation, deterioration, nervousness and insecurity."[84] Starker goes on to enumerate his teaching philosophy and primary technical principles, which are the foundation for what is known as the "Starker School" of cello playing. Given the prevalence of this school in the world of cello playing, I find it highly appropriate to include at this point in the class.

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[84] Starker, *World Of Music,* 269.

Class 4

- Discussion of Starker reading and main points.
    - Video supplement: Janos Starker shares his teaching and philosophy - April 5, 2012 https://www.youtube.com/watch?v=4zxj7K45G8w[85]
    - This video, produced by Uri and Hagit Vardi, contains footage of Janos Starker teaching and speaking with Uri Vardi about his teaching philosophy. I find this to be a great supplement to the assigned text, so that students can see Starker's principles and ideas applied in a teaching situation and also hear him describe them in his own words.
- Demonstrations of shift/bow combinations and string crossing types (Assignment #2)
- Left hand: Vibrato

I find it appropriate to devote half a class (so, an hour in this case) to the teaching of vibrato, one of the more difficult aspects of technique to teach. In doing so, I would draw from the approaches of Carey and Vardi, as well as Doane in a more advanced examination of the skill.

In *Cello Playing is Easy,* Carey describes vibrato as a "shifting motion that stays in one place."[86] She goes on to offer a series of steps to developing vibrato, beginning with a combination of aural and tactile exercises. Carey emphasizes feeling "clinging fingers and a free

[85] Hagitvardi, "Janos Starker shares his teaching and philosophy," June 10, 2013, YouTube video, 18:07.

[86] Carey, *Cello playing*, 117.

thumb", suggesting that making circular motions with the thumb is beneficial to ascertain what unnecessary, "sympathetic urges" may be occuring in the process of instigating the proper motion. An aural exercise, taken from Yvonne Tait,[87] instructs students to "Sing a tone--any tone--LOUDLY. While you are singing, shake your left fist violently in the air as if you are angry. Listen to your voice 'vibrato.' Feel the support muscles in your abdominals and lower back stabilize your body as your arm makes the shaking motion." Carey comments on the purpose of this exercise, stating that "Vibrato comes from the inside; it is not an outside technique."[88]

After establishing a "balanced, flexible, free left arm/hand/fingers with a liberated thumb", Carey encourages the student to make large "4 or 5 inch" shifts in the lower register, as if they were "polishing" the string. Then, they are to imagine "something sticky" at the end of their finger, causing the stopping of the finger motion even as the arm motion continues. Carey states that "your wiggle with your 'sticky' finger will continue for a few wiggles and then stop," admonishing students to not try and make their arm move more.

Carey offers the following additional notes for vibrato generation, which highlight common errors:

"Note that your arm is parallel to the strings. Your arm does not rotate. Your elbow opens and closes. The back of your hand remains at the same angle to the strings--you can see the top of your hand in the wrist watch position. The joints of your fingers spring back and forth with the

[87] Tait (1914-1993) was a prominent Suzuki pedagogue in the early days of the method.

[88] Carey, *Cello playing,* 117.

motion of your arm. Your upper arm reflects the motion of your lower arm and your shoulder is free. Your lower back muscles support your body in this motion."[89]

In addition to Carey's points, an overview of Vardi's approach is pertinent. For ease of reference, I have included a description of Vardi's exercises again here:[90]

> Prof. Vardi maintains that having a student interact with, and become aware of, the natural vibrations of the strings is an effective tool for encouraging the necessary oscillating movement. This can be achieved by placing the student's hand on a string and having them play a note loudly to generate discernable string vibration. Then, the teacher can guide the hand and arm to be sympathetic with the natural vibrations of the string. As the motion becomes more comfortable, the idea of vibrato as a release (through the dropping motion of the fingers) should be emphasized.

The approaches of Vardi and Carey both focus on vibrato generation from the arm motion, which I believe to be the most ideal means of teaching vibrato initially. Later on, however, one often encounters students who may be doing the proper arm motion but have developed tension in the fingers and/or lack flexibility. In this case, the "Pump" exercise offered by Doane is very helpful. In *Cello Ergonomics*, Doane describes it as follows: "To perform this exercise [the pump], start with the finger arched at the true pitch, and then pull the finger back bringing the note slightly under pitch. This action straightens the finger somewhat, whilst still

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[89] Carey, *Cello playing,* 117.

[90] See Section I.

keeping the finger directed diagonally down the fingerboard towards the bridge. Next, feeling the free weight of the left arm, use gravity to power a forward flex of the finger down the fingerboard. This 'pump' action will bring your palm slightly in towards the fingerboard, and will bring you back up to the true pitch with an arched finger."[91]

Assignment #3: Watch the following videos and read the excerpt from Ballantyne (in Morganstern). Compare and contrast the different approaches to teaching vibrato and offer a personal reflection on how you might incorporate some or all approaches into your own playing.

1) Cello Technique - Vibrato (Steven Doane): https://www.youtube.com/watch?v=2GhMUZCbC14[92]
2) Janos Starker on Vibrato (interview with Paul Katz) https://www.youtube.com/watch?time_continue=218&v=3ayqxq1CaAM&feature=emb_title[93]
3) Vibrato - Hand Position (Paul Katz): https://www.youtube.com/watch?v=PUWvu1SQhV0[94]

Reading: "Pedagogical Notes on the Teaching Methods of Leonard Rose" (p. 58-59, on Vibrato) in Morganstern, *Fundamentals of Cello Technique and Musical Interpretation.*

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[91] Students will also have the opportunity to watch Doane demonstrate his vibrato approach in the video assignment for the day.

[92] BarnesandMullinsUK, "Cello Technique - Vibrato," November 13, 2012, YouTube video, 3:37.

[93] CelloBello, "János Starker on Vibrato," April 24, 2015, YouTube video, 3:40.

[94] CelloBello, "Vibrato: Hand Position," January 17, 2011, YouTube video, 3:09.

- Since every student will have different tendencies when it comes to vibrato, and given the somewhat enigmatic nature of the subject, I find it advisable for students to be exposed to a variety of approaches. Thus, the recommended assignments for this unit include demonstrations by Starker, Doane, and Katz and additional reading on Leonard Rose's approach by Scott Ballanytne. The videos have a common thread, unsurprising given that Doane and Katz both studied with Starker at one point, though each offers his own perspective: Doane focuses on the importance of vibrato generation through finger dropping in reaction to the arm, while Katz, shown teaching a student, demonstrates the difference between the slanted and square hand positions, encouraging the student to determine which is right for her own particular physique.

  Meanwhile, Ballantyne describes what Rose considered to be "common problems [with vibrato] that can be easily corrected … Rose was fond of pointing out that the ear responds more rapidly to changes in width than to changes in speed. He encouraged his students to develop the ability to control the width of vibrato and not concern themselves too much with the speed. Of course, the vibrato should not be too slow or too fast, but the precise speed of the oscillation is less important than its width. Consistency of the vibrato is crucial."[95]

  Ballantyne goes on to discuss vibrato production, supporting the forearm generation as postulated by the others. He also advocates for the "slight [angling] of the hand away from the fingerboard." Later in his treatise, he warns against vibrating with flat fingers, noting that "Leonard Rose told me he was a victim of the flat finger

[95] Morganstern, *Fundamentals,* 58.

misconception of vibrato early in his career and worked hard to correct it. He did not, however, recommend isolating the fingertip when practicing vibrato or when playing."[96]

While Ballantyne's last point might seem to contradict the exercise advocated by Doane and other cellists, it is worthwhile to consider the pros and cons of the different viewpoints and keep an open mind when working with a student on this especially difficult element of technique.

Observation #2 due at the beginning of the next class.

Class 5

- Collect observation assignments
- Discussion of vibrato assignment
- Left hand: positions

I follow Vardi's breakdown--closed, three-finger, and thumb--in addressing the main position areas, since there is not enough class time to get into the specifics of each. In illustrating these different areas, I would draw heavily from Starker's *Organized Method of String Playing*. For the closed position (lower register), I recommend the Four Finger Position exercises on pp. 7-10, where Starker provides the following instruction: "One finger is resting on the string while the other fingers are playing all available combinations. The purpose is to strengthen fingers, to establish intonation within the given position to develop 'tendency' intonation."[97]

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[96] Morganstern, *Fundamentals,* 59.

[97] Starker, *Organized Method,* 7.

Later, this is reinforced in the "Serial Control Exercises" beginning on page thirteen, which require the player to utilize different finger combinations while traversing different positions on the instrument. These exercises logically progress from four-finger to three-finger, going into the upper register (usually referred to as fifth, sixth, and seventh positions; Starker classifies them differently as he labels positions by half-step). These are finally followed by thumb position drills. While there would be insufficient time to explore the whole of *An Organized Method of String Playing*, an overview is certainly warranted.

I would also recommend an overview of the *Position Pieces* series by Richard Mooney, a prominent Suzuki pedagogue. Written as a supplement to the Suzuki sequence, the series (consisting of *Position Pieces for Cello, Book 1*, *Position Pieces for Cello, Book 2*) plus Mooney's thumb position books (*Thumb Position for Cello, Book 1*, *Thumb Position for Cello, Book 2: Thumbs of Steel*) logically takes students through a variety of exercises and songs designed to engrain their knowledge of the different positions. In the assignment for the week, students would have the opportunity to investigate both the Starker and Mooney books further.

Given that issues related to the four-finger positions will already have been addressed in the course, I would spend this time to focus on issues related to fifth through seventh position and thumb position.

In the fifth, sixth and seventh position (three finger) common pedagogical issues include determining when to bring up the thumb, maintaining proper arm height and effectively distributing weight between the fingers. It should be emphasized to prospective teachers that students will tend not to bring up the thumb and lead with the fingers as they shift into the new positions. An emphasis on the arm height is critical as a sagging left arm will cause the fingers to

get out of the balance. It should be emphasized above all that the balance of the arm in three-finger positions is the same as it will be in thumb position. Some cellists will have the arm on a lower "plane" of balance in the lower register than others; this varies depending on the physique and setup of each player. However, regardless of what is happening in the lower register, an adequately anticipated adjustment to "thumb position plane" is necessary when getting into a three-finger position.

Similar to vibrato, thumb position is one of the more difficult areas to teach. In *Cello Playing is Easy*, Carey provides some guidance that I would emphasize to students: "Use a tennis ball to feel the shape of your hand/fingers as your arm slides the ball up and down the string. Notice how your thumb and index finger make a 'C' for cello shape. Observe that the ball supports the arch that runs across the base knuckle joints underneath your hand. Knock your fist on the fingerboard and strings. Open your fist so your fingers can knock on the strings and fingerboard. Take your arm/back weight and rest it on the string using the tennis ball shape with your thumb on the harmonic D and A. Play first position songs you know in thumb position by substituting your thumb for the open string. Pretend to drink a can of soda. Notice the angle of your hand/arm. Your elbow is forward. This shape in thumb position is called the 'Coke can' position."[98].

In *Fundamentals of Cello Technique and Musical Interpretation,* Daniel Morganstern offers his perspective on achieving thumb position security (once the fundamentals are clear to a student)[99]: "Thumb position is based on thirds and octaves. I use Popper's *Etude No. 13* as a

[98] Carey, *Cello playing,* 110.

[99] Daniel Morganstern formerly served as principal cellist of the Lyric Opera of Chicago Orchestra and American Ballet Theatre, and was a student of Leonard Rose.

basis for octave practice. Since octaves are more difficult to perform lower on the instrument I start my exercises on the A octave and work up and down from there. Thirds generally fall into four groupings (dispositions of half and whole steps). To create the feel of each grouping, I use trilling exercises. After sufficient strength has been achieved, these trilling exercises can be performed with absolutely stable intonation. This achievement guarantees eight in-tune notes over two strings. Eventually the feeling of these groupings can become as recognizable and instantaneously accessible as the colors red, blue, green, and yellow."[100]

Morganstern then includes several exercises based on the principles he describes, including a "Trilling Exercise on Static Thirds" which involves an exploration of the possible finger patterns in thumb position: Half-Whole-Whole, Whole-Half-Whole, Whole-Whole-Half, and Whole-Whole-Whole. These combinations and the effectiveness of practicing them in the manner advocated by Morganstern would be emphasized to the class.

- Right hand: bow strokes and articulations
    - Carey's "Technique is Finite" table provides a helpful listing of bow strokes/articulations that should be covered: equal strokes, détaché, staccato/martelé, legato, alternate bowing, unequal strokes, slurred staccato, hooked bow, zig-zag bow, slurs, spiccato/sautille, collé, accent within bow, ricochet, saltando, flying spiccato, ponticello, sultasto, tremolo.[101] These strokes

[100] Morganstern, *Fundamentals,* 32.

[101] Carey, *Cello Playing,* 144.

can be taught in many different ways, in many different pieces, and I find it best to leave the teaching methodology up to the pedagogue in question with adherence to the commonly accepted principles of bowing.

Assignment #4: Choose a passage from a piece you have studied that features a particular bow stroke. Submit a video demonstrating the passage and how you would teach it.

Survey one of the following books (on reserve in the library, or available online as appropriate):

- Starker, *An Organized Method of String Playing*
- Mooney, *Position Pieces for Cello*, *Book 1*
- Mooney, *Position Pieces for Cello, Book 2*
- Mooney, *Thumb Position for Cello, Book 1*

Select an exercise from your chosen book, and submit a video describing what position area(s) it covers and what points you would emphasize in teaching it.

- The above assignment encourages students to apply the knowledge they've learned from the bowing discussion of the day as well as further explore the works by Starker and Mooney.

Video observations (counts as Observation #3): In preparation for the class on advanced repertoire, watch the following masterclasses:

- Ralph Kirshbaum, Bach Cello Suite No. 5

  https://www.youtube.com/watch?time_continue=58&v=puRPkta9HaI&feature=emb_title[102]

- Gary Hoffman, Schumann Concerto (first movement)

  https://www.youtube.com/watch?time_continue=33&v=Nf8VwGInaeI&feature=emb_title[103]

Analyze the teaching using the same rubric as for your other observations. This will count for 1.5 observation hours.

- In an effort to encourage students to think critically about ways to teach advanced students/repertoire, applying the criteria for analyzing other lessons seems appropriate. I also believe it important that students are exposed to a variety of reputable cello pedagogues, hence my inclusion of masterclass videos featuring Ralph Kirshbaum[104] and Gary Hoffman.[105]

Class 6

- Discussion of observation assignment

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[102] CelloBello, "Ralph Kirshbaum Master Class: Bach Cello Suite No. 5 in c minor," February 9, 2013, YouTube video, 45:11.

[103] CelloBello, "Gary Hoffman Master Class: Schumann Concerto," November 9, 2015, YouTube video, 32:07.

[104] Mr. Kirshbaum is currently the Gregor Piatigorsky chair of violoncello at the University of Southern California.

[105] Mr. Hoffman performs and teaches internationally.

- Teaching the Bach suites
    - Inspired by Kosower and Watkins, I find it prudent to include a lecture on teaching unaccompanied Bach, something that many teachers find challenging given the infinite variety of interpretation possible when teaching the unaccompanied suites. In this lecture, I would discourage any teacher from imposing their own interpretation on a student, since this will result in a less personal performance. I would emphasize giving students tools for interpretation, such as an awareness of style, harmonic rhythm vs. melodic figures, a knowledge of the manuscript copies available, and knowledge of what Baroque dances look like. To this end, I recommend showing YouTube videos of the various dances. I would also discuss specific technical difficulties throughout the suites.

- Major concerti: sequencing, readiness, common issues
    - Similarly inspired by the inclusion of concerti in courses by Kosower and Hansen, I find it important to address some of the primary issues that arise when determining what concerto to assign a student, and specific challenges to consider. As a part of this discussion, I would categorize the standard concerti into levels of difficulty:[106]
        - Level I (generally appropriate for advanced pre-college): **Haydn**, Cello Concerto No. 1 in C major, Hob. VIIb/1; **Saint-Saëns**, Cello Concerto No.

[106] This listing is based on my own experience and education, as well as commonly-accepted standards amongst cellists.

1 in A minor, Op. 33; **Lalo**, Cello Concerto in d minor; **Boccherini**, Cello Concerto in B-flat Major, G. 482; **Elgar,** Concerto in e minor, Op. 85

- Advanced: **Dvořák**, Cello Concerto in b minor, Op. 104; **Schumann**, Concerto in A Minor, Op. 129; **Haydn**, Concerto in D Major, Hob. VIIb/2, Op. 101; **Herbert**, Cello Concerto No. 2, Op. 30; **Prokofiev,** Sinfonia Concertante in e minor, Op. 125; **Shostakovich,** Concerto No. 1 in E-flat Major, Op. 107
- Non-concerto form, large-scale pieces for cello and orchestra: **Bloch**, Schelomo: Rhapsodie hebraique; **Tchaikovsky**, Variations on a Rococo Theme, Op. 33

- **Questions for discussion regarding concerti assignments:**
  - Does the student already have the technique required to perform this concerto? If not, is it an appropriate challenge?
  - Does the student have the emotional maturity to engage substantively with the musical content of the concerto?
  - Does the student have experience with the style of the concerto? Have they played other works by the composer?
  - What is the occasion for which this student is learning the concerto? If it's for an audition/competition, will the exposition allow the student to demonstrate a variety of ability? Is there a technique or passage that might be overly challenging and thus inadvisable to present for adjudication?[107]

[107] It is appropriate to note here that students will often request to learn a more advanced concerto for an audition or competition, believing it will give them a better chance of success. It is important to emphasize that selection of repertoire for such an instance should demonstrate the abilities already attained by the student, as it is very obvious

Assignment: Midterm preparation.

- The written midterm, given in the seventh class, would draw from main points in the readings, videos, assignments and class discussions. It would be a combination of multiple choice and written responses.

Reminder: Research project proposal is due at the beginning of Class 9.

Class 7

- Midterm exam (first half of class)
- Instrument care, maintenance, and tuning
    - I find it appropriate to include a mini-unit on instrument care, maintenance, and tuning since this is an issue that teachers encounter more frequently than they might anticipate. It is also surprising how many college music students are uncomfortable with oft-required tasks such as adjusting a bridge or even tuning with the pegs. These skills are quite necessary when teaching; not only do students frequently come in with instruments (often low-quality rentals) in poor condition, but they need to be taught for themselves how to take care of basic maintenance.

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to an adjudication panel if a student does not possess the technique required to perform an advanced concerto. The unfortunate practice by some teachers of "throwing students in the deep end" in assigning a difficult concerto and forcing them to rise to the occasion is seldom effective and generally inadvisable.

With this in mind, I would endeavor to address the following topics in this session:

- Tuning with the pegs and fine tuners--when and how to use each mechanism properly. Tuning with open strings, tuning with harmonics, tuning with a tuner--differences and appropriateness of each method.
- Cleaning the instrument--cloths vs. steel wool. Encouraging regular cleaning on the part of students.
- Replacing strings--when and how. Types of strings. Emphasizing the importance of carrying spare strings.
- Adjusting/fixing/replacing bridges. Changing bridges with the seasons.
- What to do if the soundpost collapses.
- Humidification--use of dampits, case humidifiers, best practices for home storage and transportation. How to get a dampit out of a cello.
- Identifying open seams. Finding the source of “buzzes”.
- Common bow problems--stretched hair, stripped screw, proper amount of rosin. Proper bow storage (loose hair). Emphasizing the importance of having a spare bow.
- Endpin issues--removing rubber tips, use of rock stops, sharpening the point. What to do if the endpin falls into the cello, falls out of the cello, or is lost.
- When the cello or bow is forgotten: creative lesson planning.
- Dealing with renters: common repair/pricing issues.

Reading: (In preparation for Class 8) - Kanack, "Breaking the Tradition of Imitation: Creativity in Music Education and Performance"

https://musicovation.com/2015/02/20/breaking-the-tradition-of-imitation-creativity-in-music-education-and-performance/[108]

- In preparation for the following class on the Creative Ability Development (CAD) improvisational method, I would have students read the above article by the method's creator, Alice Kanack. In this piece, Kanack describes the history of CAD and the philosophy behind it. This will be expounded upon in greater detail in the following unit.

Watch: "Advanced CAD Class at the Music Institute of Chicago"

https://www.youtube.com/watch?v=upAQKveculI&feature=youtu.be[109]

- This video features some of the fundamental CAD exercises, performed by a class at the Music Institute of Chicago[110] on March 5, 2016[111]. As all these exercises will be addressed in the next class, it would be helpful for students to get a sense of what to expect.

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[108] Alice Kanack, "Breaking the Tradition of Imitation: Creativity in Music Education and Performance," Musicovation, February 20, 2015, https://musicovation.com/2015/02/20/breaking-the-tradition-of-imitation-creativity-in-music-education-and-performance/.

[109] Zachary Preucil, "Advanced CAD Class at the Music Institute of Chicago," May 21, 2016, YouTube video, 12:37.

[110] The Music Institute of Chicago (MIC) is a nationally-recognized music school headquartered in Evanston, Illinois.

[111] This class was taught by the author, who was a faculty member at MIC from 2014-2017. This video was originally created for use in a Spring 2016 faculty development presentation at MIC.

A word on the second half of the course

I have decided to structure this theoretical course so that the fundamental technical concepts are covered in the first half, while the second half primarily focuses on nontechnical issues relevant to teaching. Elements of the main topics here (teaching musicality, performance psychology, business skills) are found throughout the surveyed courses in Part I, though I am taking a more direct focus and incorporating elements of my own experience as a teacher.

Class 8

- Creative Ability Development history, philosophy, and science

The first point to be addressed here is the rationale for including an overview of an improvisational method within a cello pedagogy course. First, I refer back to the analysis of the courses presented in Part I, which found that most of the teachers included a focus on developing musicality as a part of their teaching. Second, it has been my observation that many teachers struggle to teach and cultivate musicality. Watkins and Scott illustrate this issue in *From the Stage to the Studio* with a hypothetical scenario:

> *The teacher listens to his violin student play through her pieces. The rhythm is correct, the notes are mostly in tune, and her tone is decent--but the performance is so mechanical that the teacher interrupts. 'I'm sorry, but I had to stop you. First of all, you need to vibrate every note, not just one every now and then. Also, this melody needs to be forte when we first hear it--but when it is repeated in the minor you need to play much softer.' The teacher circles the dynamic markings in the music. 'This fermata needs to be held much longer before you go on. Save your bow, OK? Start again, please.' The student begins again, and wanting to please her teacher, she vibrates every note, plays the dynamics as she was told, and holds out the note at the fermata as long as she can before going on. 'The vibrato is better, and I could hear your piano that time, but the fermata is too long now,' says the teacher. 'Something in between would work better.' So the student plays again, and the fermata errs on the short side again, but it's longer than the first time. The lesson is almost over, so these fixes will have to suffice for now. 'OK, that's better,' the teacher says, and offers a smile of encouragement, but inside he*

> *wonders how it's possible for someone to do all the right things and still sound so unmusical. Perhaps, he muses, she just doesn't 'have it.'*[112]

This scenario illustrates two key points: one, the student in question is being taught musicality through imitation; two, the teacher holds the belief that one is either musical, or one is not. In Creative Ability Development, Alice Kanack[113] directly refutes both points.

In *Breaking the Tradition of Imitation: Creativity in Music Education and Performance*, [114] Kanack describes a teaching experience she had as a young professional that inspired her to create the CAD method. When faced with a student who struggled to learn note reading via traditional instruction, Kanack decided to ask him to improvise and then record what he came up with on manuscript paper.

"What happened next," Kanack writes, "challenged everything I thought I knew about music education." The student immediately corrected his intonation and coordination issues, and demonstrated a deeply intuitive sense of musicality. "It was as if I found a magic key and unlocked a genius," Kanack recalls. "Over time, this young man became a beautiful violinist and composer, writing for the very orchestra he originally couldn't get accepted in."[115]

Kanack became fascinated with the idea of developing a method that could develop creativity, and in 1995 published what she termed the "Creative Process Theory". In this theory, Kanack presents four stages in developing a creative product: Conscious Work, Subconscious Work, Inspiration, and Theory. The Conscious Work stage might involve "setting up a problem,

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[112] Watkins and Scott, *From Stage,* 12-13.

[113] Kanack is a prominent music educator based in Rochester, New York. She is founder and director of the Kanack School of Musical Artistry.

[114] Kanack, *Breaking the Tradition*, online.

[115] Kanack, *Breaking the Tradition,* online.

repetition of work on the problem, understanding the tools necessary to solve the problem, and exploration of different points of view." Subconscious Work, which Kanack describes as occurring "in a part of the brain where we have no conscious awareness," will be most effective when one's conscious is resting or preoccupied with a different idea. In the "Inspiration" stage, characterized by Kanack as "the highest point in the creative process," the subconscious , "communicates that solution [to the creative problem] to the conscious." Finally, Kanack describes the "Theory" stage as "the analysis or theoretical explanation of the inspiration," noting that "inspiration is the one truly new creation of the individual that cannot be explained except through the analysis of his work." In this context, analysis is the only "new theoretical work" that occurs.[116]

After decades of experimentation and the publication of multiple method books, Kanack's theory received scientific validation from researchers at Johns Hopkins University, who used MRI technology to determine what happens in a musician's brain when they improvise. The experiment revealed that improvisational activity activates the medial prefrontal cortex, the part of the brain that is engaged when a person describes themselves. As Kanack writes, "...the evidence demonstrated the fact that when we improvise we are in touch with the essence of what makes each of us unique. We are then able to communicate the essence of our individuality in a musical language; this is the very definition of musicality!"[117]

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[116] Kanack, *Breaking the Tradition,* online.

[117] Kanack, Alice with Robertson, Drew. *Basslines and Fantasies: Creative Ability Development Book Two*. (Creative Ability Development Press, 2014): 9-10.

Kanack goes on to describe how science also supports the theory that practicing improvisation in a disciplined manner can literally develop creative ability. Kanack points to Daniel Coyle's research in *The Talent Code*, where Coyle describes how practicing an activity in a structured, repetitious manner causes the growth of myelin in the brain. (Myelin, according to Coyle, develops around "nerve fibers and increases signal strength, speed, and accuracy."[118]) Kanack realized that "disciplined improvisational practice could develop 'creative myelin; perhaps part of the phenomenon we were witnessing among CAD students was the result of this growth. I asked Coyle if he thought it was possible to grow creative myelin. Coyle's response: 'Absolutely!'"[119]

With this context, it would seem that Kanack had discovered a mode of instruction similar to that of Shinichi Suzuki. Just as Suzuki maintained that all students can develop ability, Kanack postulates that all students can also develop *creative* ability.[120] Kanack's philosophy also bears similarities to Suzuki's; her goal is not necessarily to create great improvisers, but to develop each student's creative self.[121]

Throughout multiple method books,[122] Kanack provides resources for students of all ages to develop creative ability. She also offers regular teacher training courses, often at the Kanack School in Rochester, New York, in a similar manner to Suzuki teacher training. In the past

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[118] Kanack, *Basslines,* 10.

[119] Kanack, *Basslines,* 10-11.

[120] Kanack actually worked extensively with Suzuki, who was very intrigued by her work. (Kanack, *Breaking the Tradition,* online)

[121] "Creative Ability Development" Kanack.org, accessed March 5, 2020, http://kanack.org/creative-ability-development/.

[122] Books and their descriptions are included in the appendix.

decade, the method has gained international attention and has attracted the attention of such notable pedagogues as Steven Doane, who wrote a foreword to Kanack's latest book, *Basslines and Fantasies.* Like the session of this course on Suzuki, it is impractical to cover all aspects of CAD; the goal is to provide students with exposure and provide resources for additional exploration.

- Overview of CAD exercises at various levels of development

CAD can be taught privately and in group classes. Many of the exercises can be adapted for both situations, and so it is highly beneficial to engage students in group activities as an introduction.

In 2016, at the request of a colleague at the Music Institute of Chicago, I compiled a description of the CAD exercises I was using in classes along with a description of purpose for each one. To offer the reader a greater understanding of what CAD is about, I am publishing those descriptions here. The exercises were designed by Alice Kanack,[123] but the descriptions and explanations are my own, based on my experience and education.

Creative Ability Development (CAD) Comprehensive Overview

Compiled by Zachary Preucil (Fall 2016)

General Overview: Creative Ability Development is a method that uses musical improvisation as a tool to develop the creative side of the brain. The author Alice Kay Kanack, nicknamed

[123] It is worthwhile here to note my own CAD background. After working with Kanack at the Kanack School from 2012-2014, and taking her teacher training class in 2015, I taught CAD at the Wheaton College Community School for the Arts and the Music Institute of Chicago.

"Mozart's Mother" by Dr. Shinichi Suzuki, has been teaching and developing this method since 1982. There are three primary rules: 1) there is no such thing as a mistake; 2) always applaud after performances, and always remain silent during them; and 3) never criticize a friend. The method is accessible to music students of all levels, from beginner to advanced.

Class Structure: Classes are 30 minutes in length and consist of group improvisational exercises with a specific musical focus (rhythm, harmony, communication, expression, etc.). See below for descriptions. The initial exercises represent the fundamentals of musical improvisation and are continuously expounded upon as the classes progress. As some students are at first apprehensive about the idea of individual improvisation, the beginning exercises give them opportunities to "hide" within the group and then gradually transition to opportunities for individual focus within the group setting as comfort levels increase.

Class Descriptions

Basic

Examples of Basic-Level Exercises

- Rhythm Machine: Students are seated in a circle with the instructor. A student is chosen to start the exercise. They tap or clap whatever rhythm they desire; they may do this on the floor, their lap, or gently on their instrument. A few seconds later, the second person in the circle enters, creating their own individual rhythm; it does not need to bear any

similarity to the rhythm already in progress. Each student enters in turn, also at intervals of a few seconds, until the entire group is in action. Then, the leader stops. At similarly-spaced intervals, each student drops out in turn until only one remains.

Purpose: Eliminating the aspect of expectation associated with playing an instrument helps students become comfortable expressing themselves. Creating rhythms as a group similarly relieves potential shyness. Musically, the rhythm machine helps students to experience how various rhythms can fit together and to feel a common pulse.

- Harmonic Rhythm Machine: Follows the same rules as the regular rhythm machine, except students are now playing their instruments instead of clapping or tapping. For congruency of harmony, students are instructed to play any notes within a specific scale (generally D Major or G Major, depending on the students' level). If students are also studying the Suzuki method, it can be helpful to recall a certain song in the given key (ex. "Use your French Folk Song fingers").

  Purpose: Represents a transition to improvising with instruments. This is generally implemented a few classes into the semester after students have become comfortable with the basic rhythm machine concept. Adding a harmonic focus gives students their first experience of improvising within a key, and exploring its expressive possibilities.

- The Tapping Game: Students sit in a circle with instruments. A key is chosen. One student is selected to be the "tapper"--their job is to walk around the circle and cue the other students to start playing by gently tapping them on the shoulder. Once a student already playing is tapped, they must stop until tapped again. Once everyone is "out", a new tapper is chosen, perhaps with a new key as well.

  Purpose: The student playing the part of the tapper has the experience of being a composer through the process of exploring the different combinations and effects that are created as various players are added or subtracted. For the students playing, it offers another opportunity to become comfortable improvising as they do not have a chance to anticipate playing solo--if it so happens that they are playing by themselves through the course of the exercise, they only associate the experience with the positive aspect of performing and not thoughts of dread or negativity that could be experienced in anticipation of playing individually.

- Basic Soccer: Students are seated in a circle with instruments. They pass "sound" to one another by making a glissando on a string and plucking (or something similar on a non-string instrument). To complete the pass, they must make eye contact with the person they are passing to.

  Purpose: This exercise focuses on communication as well as concentration--critical skills for any ensemble situation. Since there is no preset order for the passing, all students

must be constantly alert and ready to "receive" the sound at any given moment. It is often discussed how this level of awareness should be present in chamber music and orchestra situations.

- The Animal Guessing Game: Students are divided into small groups (generally 3-4 in each). Amongst themselves, they must decide on an animal they will demonstrate to the rest of the class and what key they will play it in (ex. "Butterfly in D Major"). They then discreetly communicate this choice to the instructor, who performs it with them on the piano. The rest of the class has to guess what the animal is; whomever guesses it correctly gets to have their group play next.

  Purpose: Continues to help students become comfortable with improvisation by reducing the size of the group and integrating a familiar charade-like game. Having to choose a key befitting of the animal's character causes students to consider the expressive possibilities of the keys that they know. Additionally, the necessity to come to a group decision encourages the development of interpersonal skills.

- What's the Answer to My Question?: Students are seated in a circle with the instructor at the piano. The instructor plays a simple chord progression to which the words "What's the Answer to My Question?" are sung. Once the students have the progression internalized, they take turns improvising over the bassline in pairs. As classes progress

and comfort level increases, the students will improvise one by one. The progression can be played in different keys and styles as appropriate to students' ability.

Purpose: Introduces the concept of a bassline and making more specific choices in improvisation to match the changing chords. There is never any correction if choices are made that do not work harmonically; with continued practice and familiarity with the bassline, students will intuitively discover which choices are ideal. Singing and even playing the bassline prior to improvising a melody helps the students gain an understanding of how the two components work together. Finally, the transition to individual improvisation marks a significant step in the process of finding one's own voice.

Advanced

The advanced level allows for more independence on the part of the participating students, and often contains small group activities that can be executed without an instructor. Exercises include the application of formulas to create improvised string quartets and the integration of basic and complex music theory in a straightforward, intuitive and experiential way.

Here are some of examples of how the fundamental exercises described above might be expanded upon in the advanced class:

- A harmonic rhythm machine with relative majors/minors: instead of dropping out once everyone has entered, the leader switches to the relative major or minor key. Each student changes in turn and then goes back to the initial key the last time around.
- Movable Soccer: Instead of staying in place and plucking, the students "pass melodies" to each other by playing a short improvised solo and then choosing someone to trade places with, who will then be the next soloist. This is another effective way to increase comfort with individual improvisation.
- What's the Answer to My Question in different keys: the instructor, sometimes in consultation with the students, determines a harmonic progression for the bassline prior to executing the exercise.

New exercises introduced at this level include:

- Cadenza Circle: Students sit in a circle and improvise together in a given key, often a minor, with the instructor at the piano. When the instructor modulates to the dominant chord, that is a cue for the predetermined first person to improvise a cadenza with piano accompaniment. When they have finished, the students resume the group improvisation (like a tutti) before the next person's turn.

  Purpose: Helps students to understand the fundamental improvisatory style of cadenzas as well as presenting opportunities for virtuosity. Playing a cadenza under the condition that there is "no such thing as a mistake" can lead to some incredible music-making!

- Basic Quartet: Four students play at a time. Player 1 is melody; player 2 is counter-melody; player 3 is rhythmic ostinato; player 4 is drone. A key is decided beforehand. When the melody player has finished, they pass off the melody to the person on their right and switch to counter-melody; the counter-melody player switches to a rhythmic ostinato; the rhythmic ostinato player switches to a drone; and the drone player drops out. The rotation continues around the circle until everyone has had the opportunity to play in each role.

  Purpose: This basic exercise is the foundation for Alice Kanack's 2012 publication, "Improvising String Quartets", from which many of the advanced class exercises are drawn. The purpose of improvising a quartet is for each student to experience the different components of traditional ensemble writing and examine how each impacts the entire quartet. This is immensely valuable on many levels. Students become exposed to ensemble/chamber music roles they may not be used to (ex. A first violinist playing a bassline or drone), gain an understanding of each role's function, and have to make creative decisions as a group communicating solely through musical expression.

  "Improvising String Quartets" contains forty quartet formulas, all with several possible variations. Focuses may include motivic development, melody over drone, counterpoint, and canons. A goal of the advanced class is to progress through these quartets. The theoretical concepts are explained along with practical application.

Observation #4 due at the beginning of next class.

Assignment #5: Read Watkins and Scott, *From Stage to Studio*, Ch. 5 - Performing. Write answers to the personal inventory questions spaced throughout the chapter.

- In this chapter, Watkins and Scott present a thorough overview of many issues related to performance preparation and anxiety, and intersperse their discussion with "personal inventory" boxes encouraging the reader to self-reflect on their own experiences and tendencies, including performance anxiety symptoms, experiences of peak performance, and the process of preparing for performances. Readers are also asked to consider what suggestions they may give to a student who is struggling with various performance-related concerns.[124]

Research project proposal due at the beginning of the next class.

Class 9

- Why discuss psychology?
    - The ability to teach technique is just one aspect of a teacher's skillset. A teacher must understand how students process information and perceive the lesson experience at different stages of development, and how pedagogical approaches must be adjusted to relate to them at these different stages. Additionally, many times students experience anxiety related to performances or even lessons, and while some may admit it, others may not and teachers need to be able to deal with all situations.

[124] Watkins and Scott, *From Stage,* p. 71-80.

- Learning at different stages of cognitive development

Here, it will be emphasized that when working with a young child, their focus and attention span will change quickly from year to year. In my personal experience, beginners (ages 3-5) should only be expected to engage in the lesson for about fifteen minutes; the rest of the time can be devoted to working with the parent (who should definitely be present if a child that age is studying). Another common issue is child behavior, which many new teachers are unprepared to deal with. An important skill to acquire in this area is the ability to listen empathetically to a child when they are expressing their feelings--this can significantly affect a child's behavior. Adele Faber and Elaine Mazlish address this in their book, *How To Talk So Kids Will Listen and How to Listen So Kids Will Talk:* "....children can help themselves if they have a listening ear and an empathetic response. But the language of empathy does not come naturally to us. It's not part of our 'mother tongue.' Most of us grew up having our feelings denied. To become fluent in this new language of acceptance, we have to learn and practice its methods."[125]

Faber and Mazlish go on to advise giving a child full attention, acknowledging their feelings, and helping them identify what they feel.[126] These are important skills for the teacher, who often deals with an uncooperative student. The teacher must be constantly receptive to the child's perception of the situation and be able to adjust their approach accordingly--it is okay, for example, to switch gears in a lesson setting and focus on something else, even if the original task was not accomplished. It should be emphasized to pedagogy students that this is a skill that takes

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[125] Adele Faber and Elaine Mazlesh,*How To Talk So Kids Will Listen and How To Listen So Kids Will Talk* (rev. ed.) (Scribner: 2012): 8-9.

[126] Faber and Mazlish, *How to Talk,* 9.

time to be developed on the part of the teacher, and having these core principles in mind is certainly to one's advantage.

Being receptive to the student's experience is something that can obviously be applied to all ages and levels. While working with older students (middle school and beyond) sometimes takes less specialized training and practice than working with young children, it is extremely worthwhile to study literature detailing the psychological changes that occur in adolescence and early adulthood. Some helpful resources include:

- Jensen, *The teenage brain: a neuroscientist's survival guide to raising adolescents and young adults*
- Marshall and Neumann, *The Middle School Mind: Growing Pains in Early Adolescent Brains*
- Conklin, *Social and Emotional Learning in Middle School: Essential Lessons for Student Success*

Additionally, pursuing specialized training (such as Suzuki teacher training) provides many opportunities for discussion and observation regarding psychological changes at different development stages.

- Performance psychology and anxiety
    - Explanation of focus in this area: teachers are constantly preparing students for recitals, auditions, competitions, and juries and are often faced with students voicing concerns about dealing with those situations.
    - Class discussion of Watkins and Scott answers.

- Video: Janos Starker on His Performance Anxiety

  https://www.youtube.com/watch?v=YKhOjKhd-4U

  - In this section of an interview with Paul Katz, Starker describes his experience with performance anxiety, stating that he always had a "nervous stomach" from the time he was a child through his very last performances, but the anxiety dissipated when he stepped onstage. He also describes counseling a student who was dealing with a shaky bow arm due to adrenaline. Starker's advice was for the student to focus on broader body movements to balance out the adrenaline, and to lift a small chair with the right arm to even out the muscle distribution. Evidently, these strategies proved successful as the student later got into the Philadelphia Orchestra.[127]

- Noa Kageyama on the Centering Technique

A violinist and psychologist, Dr. Noa Kageyama is well-known as a speaker, blogger and coach on the psychological aspects of practicing and performing. In a blog entitled, "How to Make Performance Anxiety an Asset Instead of a Liability", Kogeyama describes a mental strategy called "centering", originally developed by sport psychologist Dr. Robert Nideffer and adapted for performers by Dr. Don Greene.[128] Centering, in the words of Kageyama, "....is a highly effective means of (a) channeling your nerves productively and (b) directing your focus

[127] CelloBello, "Janos Starker on His Performance Anxiety," April 25, 2015, YouTube video, 3:16.

[128] Noa Kageyama, "How to Make Performance Anxiety an Asset Instead of a Liability," Bulletproof Musician, accessed March 1, 2020, https://bulletproofmusician.com/how-to-make-performance-anxiety-an-asset-instead-of-a-liability/.

even in extreme situations."[129] Kageyama goes on to enumerate the seven steps to achieving this state. His explanations are very effective and worthwhile of class presentation.

- Should teachers recommend beta-blockers and/or psychotherapy to students with detrimental performance anxiety?

A related issue in this area is where to direct a student when concerns over performance-related anxiety, or anxiety about practicing and playing in general, transcend the teacher's ability to help. Given the one-on-one nature of lessons, a teacher can unwittingly find themselves as a frequent receptor to a student's concerns, and while some mentorship is acceptable it is important for a teacher to recognize when a student would benefit more from sessions with a psychotherapist. It is also important for a teacher to be aware of signs that a student is suffering from depression, generalized anxiety or other significant mental health issues. "Promoting Student Mental Health",[130] a comprehensive online resource, is a substantial guide to educating oneself in these areas.

More relevant to performance-related anxiety is the topic of beta-blocker use.[131] According to a 2015 survey developed by Professor Aaron Williamson, 72% of musician

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[129] Kageyama, *Performance Anxiety,* online.

[130] "Promoting Student Mental Health | Resources & Support," AccreditedSchoolsOnline.org, accessed March 6, 2020, https://www.accreditedschoolsonline.org/resources/student-mental-health-resources/.

[131] The term "beta blocker" refers to a class of drugs, such as inderal or propranolol, that are intended for the treatment of patients with cardiovascular issues but can be effective in mitigating the effects of adrenaline that can prove detrimental to performers.

respondents reported that they had used beta blockers to counter performance anxiety, with 37% describing them as being "very effective" and 29% describing them as "somewhat effective."[132] Obtaining beta-blockers has become very easy in the age of telemedicine; in 2019, an online startup called "Kick"[133] launched allowing performers of all kinds to obtain beta-blockers via an online remote visit with a certified physician.

Some musicians, however, have raised concerns about the use of such drugs. Noa Kageyama, noting that they are not a necessity for most musicians, warns that they "can be overused and lead to a kind of dependence that can be difficult to break."[134] Kageyama goes on to argue that performance anxiety is more than just a physical experience, adrenaline can be beneficial to focusing, and that beta-blockers can drain one of the necessary energy to achieve "peak performance."

While the ultimate decision to take beta-blockers should be between a student, doctor, and a parent (if applicable), it is important for teachers to be well-informed on the issues surrounding their use, and thus a presentation of the above material in a pedagogy setting is highly advisable.

Class 10

- Components of an effective technique regimen for cellists

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[132] "2015 Musicians' Health Survey," Composeddocumentary.com, accessed March 3, 2020 http://composeddocumentary.com/2015-musicians-health-survey/.

[133] "Kick," Kick, accessed March 4, 2020, gokick.com.

[134] Noa Kageyama, "3 Reasons Why Beta Blockers Could Ultimately Be Holding You Back," Bulletproof Musician, accessed March 9, 2020 https://bulletproofmusician.com/3-reasons-why-beta-blockers-could-ultimately-be-holding-you-back/.

While teaching technique "from the music" is a great way to link technical skills with musical ones, it's critically important that students have a regular means of reviewing fundamentals on a daily basis. Such a routine should ideally be based on a student's individual needs, and will look different for each person, but the various regimens should have some common components.

In assisting prospective teachers with developing such a regimen, it is helpful to examine models put forth by other cellists. In a video created for the New World Symphony's "Mosaic" initiative[135], Johannes Moser outlines the various elements he incorporates in his routine: warm-ups for the body/stretches, left hand finger control exercises, bow arm warm-ups, trills/vibrato, upper register work, double stops interspersed with scales, and additional bow exercises (e.g. scales with different articulation).

Uri Vardi, while careful to emphasize that one must always be searching for novelty in practice sessions, believes strongly in daily work on the fundamentals. In a February 26, 2020 interview with the author, Vardi noted that Starker did not spend a lot of time on scales and arpeggios, opting instead to teach technique through the music and exercises of his own design. [136] Vardi does believe it is important for the teacher to know scales and arpeggios well, in different variations. He uses a variety of etude books in his teaching, in particular Popper and Piatti, with the belief that such books can be used as a tool to understand how one can develop technique endlessly. Vardi states that it is "not enough" to simply play scales in tune--scales

[135] Johannes Moser, "How-To Warm-Up Routine on the Cello," New World Symphony, accessed March 2, 2020, https://musaic.nws.edu/videos/warm-up-routine-on-the-cello

[136] Many such exercises can be found in "An Organized Method of String Playing."

should be used as a vehicle to allow fluidity and freedom in playing. Similarly, the standard repertoire can be used to isolate elements of cello technique (e.g. a passage from a concerto).

Mindless practice does not bring progress; teachers must be careful to discourage "not focusing" by telling students to do things over and over again. Boredom in the practice room causes waste of time. Oftentimes, Vardi will have students explore two or three options of playing a certain passage and have them choose which ones they like the best. Different students will choose different options. Freedom and autonomy on the part of the student is crucial.[137]

A third example worth considering is the practice schedule advocated by the violinist Dorothy DeLay. Although designed for advanced violin students, DeLay's model[138] can be applied to all string instruments in some way or another:

Five Hours (all hours are 50 minutes on, 10 minute break)

1: Basics such as left hand articulation, shifting, vibrato and right hand bow strokes

2: Repertoire passages, arpeggios and scales

3: Etudes and Paganini

4: Concerto

5: Bach or solo recital repertoire

On orchestra days only hours 1, 3 and 4 are expected.

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[137] Uri Vardi, interview by author, February 26, 2020.

[138] Vince Hardaker, "Dorothy DeLay's Practice Schedule," Violinist.com, March 7, 2012, https://www.violinist.com/discussion/archive/22092.

While not as specific as the routines outlined by Moser and Vardi, it is important to note that DeLay recommends three out of the five hours are to be spent on fundamentals, scales/arpeggios, isolated repertoire passages, and etudes. Actual repertoire is given a somewhat limited amount of time to be practiced. This structured schedule not only forces the student to engage in focused, efficient practice, but also implies that a regular attention to the fundamentals will make improvement on the repertoire that much easier.

Looking at all three examples, we see some commonalities: fundamentals in both hands are addressed, as well as scales, etudes, and repertoire passages. While obviously these routines are intended for advanced musicians, the basic elements can be adapted to any level. To this end, I advise distributing a list of appropriate technique and scale books for beginning, intermediate, and advanced levels, which students may select from to complete a practice routine. My recommendations, based on personal research and experience, are as follows:

Beginner Etudes

Appelbaum, *First Position Etudes for Strings: Cello*

Dotzauer, *113 Etudes for Cello, Vol. 1*

Martin, *I Can Read Music, Book 1*

Martin, *I Can Read Music, Book 2*

Mooney, *Position Pieces for Cello*

Mooney, *Double Stops for Cello*

Schroeder, *170 Foundational Studies for Cello, Book 1*

Intermediate Etudes

Dotzauer, *113 Etudes for Cello, Vol. 2*

Franchomme, *12 Caprices for Cello, Op. 7*

Mooney, *Position Pieces for Cello, Book Two*

Mooney, *Thumb Position for Cello, Book One*

Popper, *Ten Preparatory Studies to the High School of Cello Playing*

Schroeder, *170 Foundational Studies for Cello, Vol. 2*

Advanced Etudes

Doane, *Cello Ergonomics*

DuPort, *Studies for Cello*

Jorgen-Jensen, *Cello Mind*

Kreutzer (arr. Silva), *42 Studies for Cello*

Morganstern, *Fundamentals of Cello Technique and Musical Interpretation*

Piatti, *Twelve Caprices for Cello*

Popper, *High School of Cello Playing*

Schroeder, *170 Foundational Studies for Cello, Vol. 3*

Starker, *An Organized Method of String Playing*

Sevcik (arr. Cole), *Changing the Positions*

Scales

Galamian (arr. Jorgen-Jensen), *Scale System*

Klengel, *Technical Studies for Cello, Vol. 1 and 2*

A word on the necessity of technical regimens

While linking technique with music is the ultimate goal, a regular practice routine developed collaboratively between student and teacher and containing the elements described above is a necessity. Not only should students be following such a routine on a daily basis, but teachers must check in on it regularly. Otherwise, weeks can go by without students addressing a particular skill. This cannot be emphasized enough.

- Practice time and motivation

Another major issue teachers face is helping students find time and motivation to practice. This is a great topic to be addressed in a class discussion, drawing from personal experiences.

Assignment #6: Select an etude from one of the books listed above for **each level** (books available in the library/online). Make a video describing the intended purpose of your chosen etude, and how you would teach it.

Observation #5 due at the beginning of the next class

Class 11

- In-class teaching experience

Ideally, actual students would be able to come in (as with Kosower's example) or non-cello college students (as with Watkins' example). Pedagogy students would have the opportunity to work with each one and receive feedback from the instructor. If time allows, there can be a class discussion afterwards where students can reflect on their experiences.

Reading: (In preparation for Class 12) Ricker, *Lessons from a Streetwise Professor*, pp. 65-68 "Setting up a private teaching studio"[139]

- This helpful reading from Ramon Ricker outlines the essential elements of setting up one's own studio, including market research, policy design, and planning for performative events such as recitals. It provides prospective teachers with an accurate picture of studio teaching realities.

Lewis, "A Model for Developing a Holistic Collegiate Curriculum for String Performance and Pedagogy." pp. 15-21[140]

- Lucy Lewis's thesis addresses the issue of including pedagogy courses within a performance curriculum. In her introduction (assigned here), she surveys the current school of thought on theories for more substantial integration, and provides useful statistics on the number of performance majors turned teachers. This reading can be an

[139] Ramon Ricker, *Lessons from a Street-Wise Professor: What You Won't Learn at Most Music Schools* (Fairport, NY: Soundown, Inc., 2011): 65-68.

[140]Lucy Karelyn Lewis, "A Model for Developing a Holistic Collegiate Curriculum for String Performance and Pedagogy." (DMA diss, The University of Iowa, 2014), 15-21, Ann Arbor: ProQuest.

excellent springboard for discussion on the importance of pedagogy within the performance curriculum, which will be a critical issue for students who go on to teach in higher education.

Park, “High School of Online Cello Playing: A Quantitative Analysis of Online Music Instruction Via Video Conferencing Application." pp. 50-55 (Chapter 5, Conclusions)

- Yeil Park’s thesis examines the effectiveness of online lessons, which have become a viable alternative when teachers are looking to expand their reach beyond their locality, continue instruction while either teacher or student is out of town, or find alternate modes of engagement during a public health concern such as a global pandemic. In contrast with previous opinion-based research, Park sought to quantify the effectiveness of online lessons by teaching a sampling of high school students online for several weeks, then traveling to give them in-person lessons and comparing the students’ experiences between the online and in-person formats, and online post-in-person format. “Using information derived from the data, this study concludes that online video conferencing lessons were less productive than in-person lessons but were still effective,” Park writes. “In addition, average lesson ratings improved significantly after meeting in-person. In conclusion, this study found that online private lessons are feasible for high school students.”[141] This important study represents a worthwhile discussion topic for teachers entering an increasingly digitized professional world.

[141] Yeil Park, "High School of Online Cello Playing: A Quantitative Analysis of Online Music Instruction Via Video Conferencing Application," (DMA diss, Arizona State University, 2019), 50-55, Ann Arbor: ProQuest.

Observation #6 due at the beginning of next class.

Class 12

- Administrative Tools for Studio Development
    - Discussion of Ricker reading.
- Purpose and function of pedagogy at the college level
    - Discussion of Lewis reading.
- Handout: Watkins and Scott, *Who Teaches the Teachers?*[142]
    - Watkins and Scott's 2013 *Strad* article states that "it is time for every university and conservatoire to re-evaluate what is offered future music professionals," advocating for a holistic approach that integrates the oft-separated performance and education tracks. This is a good supplement to the Lewis discussion.
- Online lessons: pros and cons
    - Discussion of Park reading.
- Developing a teaching philosophy
    - A helpful guide in this area is the Chapter 10 of *From Stage to Studio*, "Your Teaching Philosophy." Here, as in other chapters of the book, Watkins and Scott provide "personal inventories" designed to aid teachers in developing their own philosophy of teaching, to be shared with students and parents. The inventories, as follows, can be effective in a class exercise:

[142] Cornelia Watkins and Laurie Scott, "Who Teaches the Teachers?", *The Strad* (September 2013): 44-48.

- Make a list of the most important abilities and/or qualities students will develop through their work with you. Preface each item with the phrase, "As a result of my instruction students will…" Priorite your list, and begin to consider the first three or four as building blocks for your philosophy statement.
- Drawing from your list of teaching goals, write statements that describe what your students do to demonstrate mastery of those concepts. Start with more easily quantifiable goals in areas such as technical ability and knowledge. Then write similar statements for less quantifiable goals, such as those having to do with musical expression or conceptual understanding (for example, "the role of history and theory in interpretation"). Finally, venture into the areas of "appreciation" and other intrinsic/aesthetic qualities--how do you offer them, and how do your students demonstrate growth in these areas?
- Look at your current statements about teaching. If necessary, remove any wording that suggests what others should be doing. If you haven't done so already, make a statement about the kind of musician, teacher, and person you will be to your students. Statements should be strong and positive, but needn't come across as arrogant or boastful--these are your truths from within, and as such they have their own innate strength.
- What have been the major influences in your musical life, both positive and negative? Can you identify the most rewarding and formative

elements of your life as a student and performer, and perhaps even now as a teacher? How have these influences shaped your development, musically, technically, philosophically, and personally?

- What is your musical heritage? What traditions, techniques, or even "pearls of wisdom" have been handed down to you? What will you pass along to your students?[143]

Observation #7 due at the beginning of next class.

Research project presentations begin next class.

Class 13

- In-Class Research Project Presentations

Observation #8 due (if necessary….nine hours total are required).

Class 14

- In-Class Research Project Presentations

Final Exam - separate session

[143] Watkins and Scott, *From Stage to Studio,* p. 162-168.

SAMPLE OBSERVATION RUBRIC

Name:_____

Date(s) of Observation:_____

Names of Teacher/Student observed:_____

Activity (describe what was done)	**Purpose** (why did the teacher do the activity in question)	**Commentary** (Did it work well or not? Why? Would you do anything differently?)

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Appendix I: Interview Summaries

The following are notes taken from a conversation with Cornelia Watkins regarding her Northwestern pedagogy course at her home in Madison, Wisconsin on February 23rd, 2020. These notes are provided with the express permission of Professor Watkins.

Beginning class: emphasize pre-instrumental phase, put in place the concept that there is more to being a musician than just playing. This can often help remind students of their own beginner experiences and take them out of the "advanced playing" bubble they find themselves in at music school.

Dalcroze Eurhythmics exercises are helpful in achieving the above goals. It is beneficial to have the students watch a video involving college students participating in the exercises, in order to mitigate potential self-consciousness. This reminds students of their experiences "having fun" as beginners.

Group teaching/planning is discussed extensively in classes on beginners.

Students are encouraged to base everything they do on a technical foundation. Professor Watkins notes that getting advanced students to think about fundamentals is very difficult.

Class three involves discussion of natural motion: finding freedom in playing, hanging/draping arms, etc.

Prof. Watkins believes it's important not to tell students how they *should* be teaching, but does emphasize "thinking fundamentally" as a basis for developing one's individual pedagogical approach.

Prof. Watkins believes students should not have tapes. She will draw pencil lines on the fingerboards of her own students, but tell them that once they rub off they must locate the notes by ear. She has a very successful means of teaching finger placement aurally, often involving the use of harmonics.

"Beginner" students used for practice are other college music majors studying different instruments, because it would be impractical to bring in actual, young students.

Prof. Watkins teaches first and fourth positions before second and third. She often uses harmonics to illustrate smooth and fluid shifting technique. She also frequently discusses the effects of sympathetic vibrations (i.e. having a student playing a low "D" and observing how the upper strings resonate).

Prof. Watkins' goal in teaching the course is to give the students concepts to grow with. She likes to go in-depth on a specific concept or idea and not simply gloss over general topics.

Prof. Watkins finds that students tend to be dependent on her for information and less likely to "think outside the box" to develop their own pedagogical tools. She attributes this tendency to their status as students and psychological implications of that.

Lesson observations for the course do not have to be instrument-specific. During lesson observations, Prof. Watkins encourages students to look for specific elements, such as different modes of instruction (kinesthetic, visual, aural) and things that make the lesson particularly memorable.

Students are given a variety of literature to choose from for book reviews.

Prof. Watkins invited Avi Friedlander, head of the Suzuki program at the Music Institute of Chicago, to give a presentation on the Suzuki method. This presentation involved an overview of the Suzuki philosophy, methodology, components of a typical Suzuki lesson, and information on obtaining teacher training through the Suzuki Association.

Prof. Watkins spends a good deal of class discussion on strategies for motivating student practice.

The “Progressive Syllabus” assignment calls for students to develop their own steps for starting a beginner, essentially answering the question, “What does a student need before they touch the cello?”

Prof. Watkins believes it is important to give students autonomy/ownership in lessons.

All students in the class keep a “teaching notebook”, essentially a compilation of teaching materials and resources distributed in class.

Prof. Watkins encourages private students to memorize pieces as soon as possible, since the music stand can be a “barricade” of sorts for communication.

A class session is devoted to starting one’s own studio so that students might have practical tools for developing their own class of students.
For the second quarter of the class, readings are drawn from the book Prof. Watkins co-authored with Laurie Scott entitled, “From Stage to Studio” (see bibliography).

One assignment is for students to analyze the cello arrangement of Rachmaninov’s “Vocalise” and list everything a cello student would need to know to be able to play it successfully. They divide the requisites into skill and knowledge components.

Prof. Watkins always has two or three teaching principles written on the board during every class.

Prof. Watkins tries to give students opportunities to create media that will be helpful for them when they begin teaching professionally, such as demonstration videos and handouts.

One assignment requires students to talk to a former teacher of theirs to learn more about what they were like as younger students, and learn more about their teacher's experiences (i.e. what is rewarding about teaching, did they always think they would teach, etc.) The goal is for students to gain an understanding of how teachers think.

The following are notes taken from a phone conversation with Abbey Hansen, Suzuki Pedagogy Instructor at the Cleveland Institute of Music (CIM), on February 26th, 2020. These notes are provided with the express permission of Mrs. Hansen.

- **On the origin of Suzuki at CIM:** The Suzuki Pedagogy program at CIM is approximately 20 years old. Its formation was essentially a result of the right people collaborating at the right time. If the program hadn't been started before, it would probably be difficult to make it happen at the present time.

- **On why programs like CIM's are rare:** The key elements needed to make this type of program possible are adequate financial resources, qualified teacher trainers, and a vibrant Suzuki preparatory program to be utilized for observations and practicum. It is unusual that all of these elements can/will be present at a given institution, especially when one considers that there are not a large number of SAA-approved cello teacher trainers. Hansen does not believe that there is a lack of support for Suzuki amongst college administrations--in fact, it seems true that most administrations recognize the value of pedagogical training and exposure to the Suzuki method--it is mainly practical barriers that tend to emerge.

- **On CIM's pedagogy requirements:** There is no required pedagogy for undergraduates, though Hansen would support such a requirement. However, Hansen does have some undergraduate upperclassmen enroll in her classes. For graduate students, pedagogy is required but they have the option of taking a general pedagogy course.

- **On motivations of students for taking the courses:** Most students in the Hansen's classes have a demonstrated interest in pedagogy. Some are looking to explore and learn more about Suzuki, while others have decided that it is an area of work they definitely want to pursue. Many recognize the practical value of registering training, as many Suzuki programs will not hire a teacher who lacks those credentials. Hansen notes that the majority of her students had a Suzuki background in their formative studies, so have an idea of what to expect.

- **On what an ideal pedagogy requirement should look like:** Hansen believes that all performance majors should have a pedagogy requirement, but it doesn't necessarily have to take the form of Suzuki training. Hansen states that long-term training courses like hers should be offered at the graduate level only, since it is important that students attain a high level of instrumental ability before pursuing a teaching career that will likely necessitate the teaching of high level students. Given the predominance of the method, it is certainly worthwhile for a general pedagogy course to provide exposure to Suzuki, perhaps by bringing in a teacher trainer for a day or encouraging observations of Suzuki teaching at local programs. Organizing an "Every Child Can" (ECC) course, the first step

in the Suzuki training process at one's institution could also be a useful strategy for sparking students' interest. Conversely, it would be inadvisable for an instructor who is not a Suzuki teacher trainer to use the repertoire extensively within a pedagogy class, since the students in question would not be able to register training with SAA and may not gain the same understanding of the Suzuki approach as students who have taken an actual teacher training course. The best strategy for any general pedagogy teacher is to inspire students to learn more about Suzuki, and to take advantage of the many educational opportunities offered by the SAA if they desire.

The following notes are taken from a phone interview with Professor Uri Vardi at the University of Wisconsin-Madison on February 26, 2020. These notes are provided with the express consent of Prof. Vardi.

- **On essential elements of a pedagogy course:** The role of the teacher is to clarify what it is that musicians should discover for themselves. Musicians need to communicate very personal ideas to an audience and the teacher needs to help them discover what those ideas are. Musical scores provide certain clues from the composer regarding what should be expressed from the music, but students need to express that through their own perspective. Too many teachers separate technique from music, but Vardi states he is a believer in "mixing"--teaching the technique from the music. The purpose of technique is therefore to allow a performer to communicate as clearly as possible. Teachers must take their students on a journey, helping them see how the music echoes in them, and then find the tools to do it effectively.

  Of course, this process does require training in adopting control of tools, but the tools must always be put in context with musical ideas. Teachers should focus certain lessons on different tools, and summarize to the student "what it is we have done."

  It is very important that students understand concepts on a sensory and kinesthetic level. Musical concepts cannot stay only intellectual, and technical concepts cannot be

practiced only by looking in a mirror. Sensitivity shows you the difference between something that has a positive effect on the listener and something that has less.

A good pedagogy teacher will emphasize the role of *musician*, as opposed to being a technically-proficient cellist….this is the center of what we are doing. It is essential that performers communicate uniqueness and individuality. Sensory and kinesthetic elements draw from physics, but everyone understands and experiences them differently. Understanding things physically requires feedback from a teacher who knows about it.

- **On class structure, content, and requirements:** Most of the students taking Prof. Vardi's class, which is offered as an independent study option, are his own. On a few occasions, he has had students enroll from Prof. Parry Karp's studio, and has used the opportunity to expose those students to his approach. If Prof. Vardi were in a situation where he had to teach pedagogy to students coming from multiple studios (at a larger program), he would offer the class for two semesters. In this theoretical course, the first semester would comprise of the content he normally teaches, introducing technical "tools", but the second would be a masterclass format in which students would apply and interpret those tools. Prof. Vardi believes every cellist enrolled in a performance program should have at least one semester of exposure to elements of high-level cello playing. He notes that the Feldenkrais class he co-teaches at Madison along with his wife, Hagit, can fulfill pedagogical requirements for certain performance majors (i.e. voice and piano).

- **On his experience with the Feldenkrais method:** Prof. Vardi came to study Feldenkrais in the early 2000s, after he had already been teaching at UW-Madison for several years and before that in Israel. He states that he believed in the underlying philosophy of Feldenkrais before he took the training. Prof. Vardi recalls a class he gave at the Juilliard school demonstrating how Feldenkrais is relevant to instrumental study, and that some of his former students who attended remarked that his teaching was not all that different than it was before. However, Vardi asserts that his experience with Feldenkrais has developed his ideas deeper. The origins of his philosophical ideas come from his experiences as a student of Janos Starker and Gyorgy Sebok, in particular Sebok's idea of teaching the student as a whole person, and the art of communicating deep emotional ideas through music. Feldenkrais, for Vardi, has become yet another tool at his disposal.

- **On what constitutes an ideal technical regimen:** Vardi, coming from the Starker school, notes that Starker did not spend a lot of time on scales and arpeggios, opting instead to teach technique through the music and exercises of his own design. Vardi does believe it is important for the teacher to know scales and arpeggios well, in different variations. He uses a variety of etude books in his teaching, in particular Popper and Piatti, with the belief that such books can be used as a tool to understand how one can develop technique endlessly. Vardi states that it is "not enough" to simply play scales in tune--scales should be used to allow playing to be fluid and free. Similarly, the standard repertoire can be used to isolate elements of cello technique (e.g. a passage from a concerto). It is important to always be searching for novelty in the practice

room--mindless practice does not bring progress. Teachers must be careful not to encourage “not focusing” by telling students to do things over and over again. Boredom in the practice room causes waste of time. Oftentimes, Vardi will have students explore two or three options of playing a certain passage and have them choose which ones they like the best. Different students will choose different options. Freedom and autonomy on the part of the student is crucial.

- **On teaching expression and musicality:** One must link one’s mode of expression in daily life to one’s playing. You have to be aware of yourself--otherwise, it is hard to be genuine. The expression has to come from inside you, from mental experiences and traits. This is the purpose of what we are doing--using imagination to tell something to our audiences through sounds. Certain energies reach our audiences well.

The following are notes from a phone conversation with Dr. Paula Kosower on February 29, 2020. These notes are provided with the express consent of Dr. Kosower.

- **On pedagogy requirements at DePaul:** Cello Pedagogy and Orchestral Repertoire are taught in alternating years. This allows graduate students to take both classes during their two-year program. Undergraduates take the classes during their junior and senior years. Dr. Kosower's classes are taught in a three-quarter track.

- **On logistics of student observations and teaching practicum:** Dr. Kosower has found that it is most feasible for students to observe her own teaching, as it can put an imposition on other teachers if pedagogy students are frequently attending lessons. However, Dr. Kosower has observed that private students respond differently in lessons that are observed and tries to keep observations of any one student to a minimum. She has accrued a substantial library of teaching videos that she uses to balance out the time students spend observing live lessons.

  On some occasions, Dr. Kosower has had her own private students visit the pedagogy class, and had pedagogy students work with them while she observed, which she found to be very effective. However, these were unusual cases where the students in question were not in school (e.g. an adult student and a homeschooled student). Dr. Kosower would like to create more opportunities for students to get practical experience teaching various age

and ability levels, but this can be difficult as she is usually drawing from her own studio, which doesn't always have an equal representation of these levels.

- **On student attitudes towards pedagogy:** Dr. Kosower has taught pedagogy at a variety of collegiate institutions, and has observed that some students with a strong focus on performing do not always appreciate the value of pedagogy. This seems to be an issue that sometimes emerges when pedagogy is required within a vibrant performance program. She makes a strong effort to illustrate for these students how the classes will benefit them, but also recognizes that her impact is limited and that experiencing the "real world" is perhaps the best catalyst for a shift in attitude amongst skeptics. She remarks that it only takes a couple students with a dubious attitude towards the class to diminish the experience for everybody, which is obviously frustrating. On a more positive note, she had some students start the class doubting their ability to become an effective teacher, and leave the class with increased confidence. The majority of students seem to recognize the many benefits of taking pedagogy.

  Dr. Kosower has found, as one might expect, that graduate students with some teaching experience will tend to ask substantial questions and bring valuable insights into the class, which is very beneficial for their undergraduate colleagues.

- **On final evaluations:** Dr. Kosower has previously required only a final presentation and discussion as a final exam. In Spring 2019, she added a multiple-choice exam as an extra

component. She found this to be helpful to her as an instructor, as it demonstrated more concretely what students were (and were not) getting out of the class.

- **On incorporation of Suzuki method material:** Dr. Kosower, while not a Suzuki-trained teacher or teacher trainer, has a significant background in method. She began the cello herself with the Suzuki approach, and recalls encountering a substantial amount of Suzuki-based material while taking low strings pedagogy as a doctoral student at Northwestern University. She also took a class on the Suzuki method at Northwestern with the late and highly-revered Suzuki pedagogue, Gilda Barston. She found both experiences to be very helpful for her own teaching and consequently strove to integrate a significant overview of the Suzuki cello method into her own classes, as the books demonstrate a very logical progression of technical development. In addition to Suzuki material, she also uses the "Solos for Young Cellists" series, technique books by Rick Mooney, a scale book by Julius Klengel, and the "CelloTime" series for younger students. She also requires that students in her classes complete readings on the Suzuki method. While DePaul students taking Dr. Kosower's class cannot register Suzuki training with the SAA since Dr. Kosower is not a teacher trainer, she does encourage them to pursue that training if they so desire, and some have.

- **On inclusion of Music Education students in instrument-specific pedagogy:** Dr. Kosower states that she has given some thought to the issue that music education students often lack exposure to specialized pedagogical instruction, which can consequently cause

some confusion in their own teaching. It would be ideal if this type of instruction was more accessible to education majors.

- **On teaching the bow hold/arm:** Dr. Kosower is in agreement with the author that the specifics and mechanics of the bow hold and bow arm are among the more difficult aspects of teaching the cello; if the bow side isn't working, it doesn't really matter how good the left hand is, since the bow is what is producing the sound. Dr. Kosower indicates that her approach to teaching these skills is inspired by the approach of Dr. Tanya Carey, having students begin by finding the shape of the bow hold with the hand only before progressing to holding a soft object, which mitigates a tendency to grab the frog and become tense. When finding the bow hold, it is advantageous (especially for young children) to "hang" the hand at the frog with the bow hair facing outwards, before finding the "bump" of the frog with the thumb and subsequently setting the bow on the string, with the teacher's guidance. Dr. Kosower emphasizes that the angle of the thumb is of critical importance since it impacts the balance of the whole hand.

- **On student motivation:** Dr. Kosower expresses that it is important to be conscientious of how students are perceiving their progress. Oftentimes, she will inherit students who have been unable to progress from a given Suzuki book and find themselves discouraged. She believes it is important to maintain student interest by assigning non-Suzuki pieces, and finding ways to make lessons enjoyable for each student; after all, the goal of

teaching is not necessarily for students to become professional cellists, but to have a rewarding learning experience through music.

- **On content of her syllabi:** Dr. Kosower emphasizes that her syllabi have changed, and will continue to change, over time as she is constantly adapting to the needs of a given class. For example, some graduate students may only be able to take the class for a quarter, so she will need to provide more information in that quarter than she would have otherwise.

- **On preparing students to be competition adjudicators:** Dr. Kosower, noting her own experience as an adjudicator of solo/ensemble competitions over the years, believes it's important for students to have an idea of what to expect should they be called upon to judge in such a situation. To simulate this, Dr. Kosower plays different recordings of young students and asks the pedagogy students to evaluate them as if they were judging in a competition. At first, only the audio of these recordings is presented. After the students convene and decide on a theoretical "winner", she shows them the videos of the students they heard and asks them to consider whether their decision would have been different had they seen the video beforehand. She remarks that the visual element often makes a difference in our perceptions, which is an important lesson.

- **On determining content for the classes:** Dr. Kosower remarks that constructing a pedagogy course feels like "reaching into thin air" because there is no ultimate textbook

and the nature of the course will largely depend on the needs of the students in question, and the resources available to them. However, she has found it beneficial to assign various readings throughout the semester, which are indicated in her syllabi. She will also assign videos to be watched prior to class and use class time to engage in discussion on their content. She also requires that students maintain a binder with all the class materials, which they can use as a resource in the future.

Appendix II: Works in the Creative Ability Development Series

(descriptions by Alice Kanack)

Kanack, Alice. *Musical Improvisation for Children.* Miami: Alfred Music Publishing, 1998.

A keyboard based book for beginners of any age. It includes musical stories, fantasy pieces, and more. Musical Improvisation for Children also includes games for children to play together, so it's great for young group classes. This introduction to Creative Ability Development includes a CD for use with any kind of keyboard.

Kanack, Alice. *Fun Improvisation for Violin, Viola, Cello, or Piano.* Miami: Alfred Music Publishing, 1997.

Originally titled Creative Ability Development Book 1, these instrument-specific books are paired with a practice CD and are designed to work in conjunction with early Suzuki studies. They also serve as an excellent introduction to Creative Ability Development for intermediate students new to the method.

Kanack, Alice with Robertson, Drew. *Basslines and Fantasies: Creative Ability Development Book Two*. Creative Ability Development Press, 2014. p. 9-10.

This newest addition to the series includes two recording discs for improvisational practice. With the end goal of creative fluency in all twelve keys, this single and compact book includes a wealth of animal-themed fantasy pieces, finger charts, and practice strategies for violin, viola, cello, and piano, making it perfect for siblings playing different instruments.

Kanack, Alice. *Improvising String Quartets.* Creative Ability Development Press, 2012.

Intended for advanced players and professional musicians, Improvising String Quartets can be used with large or small combinations of instruments. This invaluable text is the primary resource for the widely acclaimed Creative Ability Development Tour Group at the Kanack School, whose students employ this book weekly as a warm-up and source of inspiration for more sophisticated improvised works**.**

Appendix III: Notes on the Pedagogical Methods of Uri Vardi (by Zachary Preucil)

As a student in Prof. Vardi's "Advanced Cello Pedagogy" course in Fall 2017, I had the opportunity to experience his pedagogical methods in depth. The following are excerpts of my personal notes from that class, which have been incorporated into the section featuring Prof. Vardi in Part I.

Acture/Dynamic Posture

Feel a solid connection between the foot, leg, pelvis, torso, and the arm. Feet are positioned so that the heel is an alignment with the knee. Standing molto legato: student leans forward while sitting to shift weight into their feet, then stands up slowly while keeping their feet grounded to the floor. Then the student returns to a sitting position gradually.

Push into the floor with the heel to feel the connection between the pelvis and feet. Explore circularity of pelvic movements...this has a significant effect on the shape of the lower back and the flexibility in shoulders/arms. The position of the back should be found by springing upward from the pelvis as a reaction to pelvic movement.

Function of the sit bones in shifting body weight; one will observe that leaning to the right or left impacts arm movement. It is important to be aware of how you instinctively distribute weight between the sit bones--following some experimentation, it is often observed that the side you tend to favor has changed. Try shifting weight while playing, and observe how the sound is affected.

Arms

Cellists tend to "brace" with their arms. It is good to help the student feel the free weight of their arms naturally away from the instrument. Students can relax the weight of their arms into the teacher's hands, or have the teacher lift the arms from the back to help students be aware of, and potentially identify tension in the upper arms.

Left hand exercise: student makes a loose fist and rests it on the cello to feel the whole weight of the arm transmitted into the fingers--start on the C string and then move across to the A string, movement generated from shoulder/upper arm. When you get to the A string, assume the usual hand position for playing and feel the weight sink into the fingers.

Right hand exercise: rest both hands on the bow at the wrist (one in the lower half and one in the upper half), and feel how the weight is resting on the stick. Then, while allowing the right hand to hang loosely over the frog, have the teacher encourage pronation of the hand through outward rotation of the elbow and upper arm. Teachers should work with the arms to direct attention there and away from the wrist and fingers (a student will naturally be more drawn to those appendages).

Bow hold: Many times, there is a need to start from scratch when inheriting a student with poor bow hold habits. Don't correct; introduce a new habit to the nervous system. One exercise is for the student to hold the bow at the balance point; they are not used to holding it there and less

inclined to go back to old habits. Other exercises: bow crawls, making a bow hold on other objects.

Weight distribution: Have the student participate in various physical motions with the bow arm that are similar to the necessary bowing motion. Have the student place the bow on one open string and draw a down bow. Slowly, they create a double stop with the next string up in as natural a manner as possible--the double stop does not happen deliberately, but as a result of the natural pronation of the arm. The student then arrives on the next string and returns in the same manner, with the double stop transition. Finally, after repeated practice, the student may do the same motion but on one string. This effectively encourages the necessary arm rotation to generate equal weight into the string at all parts of the bow via pronation.

Bow Change: Make sure to allow bow for the change to happen. At the tip, the change motion is generated by the arm naturally completing the circular motion that has been generated by the outward elbow rotation. At the frog, imagine that the elbow is "melting" into the forearm and feel how the change of equilibrium is occurring. One must feel the direct transmission of weight from the upper arm into the lower half of the bow. Be careful that the tone is not inadvertently generated by pressing from the wrist.

Push and Pull: "Pushing" muscles are found on left side of the arm, used on an up-bow and "pulling" muscles are found on the right side of the arm, used on a down-bow.

Exercise: both teacher and student to make loose fists and push them against each other to activate the pushing muscles of the arm, and to make cupped hands and "pull" each other's fingers to activate the pulling muscles. The transition between muscle groups is facilitated by the elbow, which begins moving in the new bowing direction just before the bow change.

Bow Path: students must be aware of the correlation between the physical sensation of the arm and the resulting sound.

Exercise from Tortelier: the student places the bow backwards on the string (with the frog where the tip would normally be at the beginning of a long up-bow) and traces along the bow stick with the hand. This encourages the proper motion of the arm to maintain a consistent bow track.

Left Hand Issues: Arm height should be in line with the wrist and fingers (if the arm becomes too low or high on the left side, we lose the connection with the shoulder blade).

Exercise: move the elbow up and down while in playing position and observe what the most natural feeling is.

Similar to the bow arm, rotation of the upper left arm is necessary to effectively transfer the weight between the fingers. This is why Prof. Vardi refers to extensions as "rotations".

Shifting: Three planes for movement.

1. Vertical, "along the string" where shifting happens. Focus on anticipatory gestures required for shifting as well as the different types of shift and bow combinations.
2. Vertical up-and-down movement of the fingers.
    a. **Exercise:** take the hand away from the cello and find the proper position on another object. A student can make the hand position on their arm, so they can experience what the fingerboard is "experiencing"--and do the same on the teacher's arm.
    b. **Exercise:** flatten one's knuckles on the left hand and then hold the fingers up one by one to encourage independence.
3. Horizontal plane, involving the movement of fingers across the strings. The arm is the "driver" and the fingers are "passengers". Fingers have a tendency to not release during string changes. The thumb must also follow the hand to maintain the appropriate balance. Same finger string crossings: use the other fingers to bring it across as well as the arm.

Left hand positions: four finger positions, three finger positions, and thumb position. Tapes are okay, but an aural/physical understanding is better. The teacher should encourage the student to test intonation with open strings or double stops. In the upper register, focus on the physical sensation of the arm and fingers that generate the intonation as a unit. Place the tip of the thumb on the string that the fingers are playing on in thumb position, not the knuckle.

Articulation: note articulations made in the course of regular speech. Vowels and consonants must occur on the cello just as they occur in language. Ask students what they experience physically when verbalizing articulations, then compare this to the experience of engaging the string with the bow.

Vibrato: emphasize the generation of the motion from the arm, not the hand and wrist. Having a student interact with, and become aware of, the natural vibrations of the strings is an effective tool for encouraging the necessary oscillating movement.

> **Exercise:** place the student's hand on a string and have them play a note loudly to generate string vibration. Then, the teacher can guide the hand and arm in the vibrato motion. As the motion becomes more comfortable, emphasize the concept of vibrato as a release.

Breathing and Body Rhythm: The lung muscles are connected to the arm muscles. If one's breathing becomes shallow (i.e. "chest" breathing), the arms will brace and become tense. Always be curious about physical habits demonstrated by students, and challenge those habits by having students do the *opposite* motion of what they are doing, and exaggerate it.