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Abstract

The pedagogy of the American collegiate clarinet studio professor is grounded in a deep tradition of artistry and collective experience. Their work has produced many successful practitioners of the clarinet throughout fields in performance, academia, education, and a multitude of other musical facets. However, upon review of the literature, little can be found with respect to lesson observation. This work, in part, documents the teacher/student interaction in an applied clarinet studio.

Researchers in the field of education have concurrently developed theories of learning and teaching that educators regularly use to ground their work. These theories have been developed by researchers in the fields of both education and psychology. Music education researchers have also taken interest in these theories and observed how they may or may not be present in the music classroom. Behaviorism, cognitivism, and constructivism are three of these recognized theories. While the professional music educator in the k-12 teaching environment has many resources connecting music education to these theories, the postsecondary clarinet teacher does not enjoy the same resources.

This document is an attempt to deepen the dialogue between the postsecondary clarinet educator and education researchers by making observations about the clarinet studio with respect to behaviorism, cognitivism, and constructivism. Connections to learning theories were made through the observation of a clarinet lesson and subsequent interviews.

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Chapter I – Introduction

Like many, I was unsure of what topic to focus my research on as I began my doctoral studies. After the first year of my DMA work, I wound up taking a couple of years away and returned to the public school music classroom. During the summers, I took classes at the University of Oklahoma and a course on music theory pedagogy left me with further questions. The curriculum included an article where the author leaned heavily on the work of John Dewey, and while I was familiar with Dewey from some of my undergraduate education courses, I felt that it was necessary to research his work more. Following this class, I read Dewey's Democracy and Education. I found myself highlighting, underlining, and writing marginalia relevant to all the observations and connections made with respect to studying within a school of music and the applied lesson interaction.

When I moved back to Oklahoma to finish my doctoral studies, I knew that I wanted to communicate to my clarinet colleagues connections like those that I found while reading Dewey's work. The pursuit of relaying these ideas has led me down the path of learning about research methods and motivated my work with faculty who have greatly helped guide this study. Cross–curricular conversation of this kind necessitates an overview of concepts that are well understood by applied clarinet professors and education researchers; this clarity enables professionals in both fields to engage with one another. While my primary pursuit remains the study of applied music, I am also interested in interdisciplinary approaches that bring education research into closer dialogue with the work I have done with collegiate clarinet students.

Many colleges, universities, and conservatories across the United States offer music programs that feature an applied lesson component with an expert instructor on one or more instruments. Programs across the country are unique given the individualized perspective and training of the instructor(s), but Montana State University offers a definition of the applied lesson which is typical to the expectation at many institutions. Their definition in part reads: “In Applied Music, students have a one-on-one lesson with faculty members and attend a group studio class weekly.”[1]

This definition broadly describes two components of the applied lesson. First, there is the one-on-one instruction. Music students are often fortunate to have the opportunity to individually work with a content area expert (the applied professor) on their craft for multiple semesters. The content area expert often teaches an instrument, voice, conducting, or other musical performance craft. These lessons may be taken in combination with a weekly class component where all students studying with that professor meet to learn content in a group setting. This group setting is an important component of many programs. However, the focus of this research will be on the former lesson component.

The applied lesson is often offered in a variety of instruments, and clarinet is commonly among them. The postsecondary clarinet studio is an educational environment rich in tradition, knowledge, and community. There have been great historical pedagogues globally, and their students continue to refine the methodologies used to help learners today. Rich teaching traditions have developed into recognized

[1] “Applied Music/Individual Lessons,” Montana State University, accessed April 29, 2025, https://www.montana.edu/music/appliedstudies/appliedstudies.html.

schools across the globe. The United States is one such recognized school of playing and scholars like Dr. Carol Kycia denote Daniel Bonade as a founder of this school of playing in her work.[2]

Bonade was notably trained by Jean-Xavier Lefebvre (a student of Cyril Rose) and later accepted as a student at the Paris Conservatory. He would go on to be heard in orchestras across the United States. These included the Philadelphia Orchestra, Cleveland Orchestra, and the N.B.C Symphony. Pedagogically, he left a mark with students who would go on to be some of the most influential figures with respect to teaching and performing the clarinet. These students included: Robert McGinnis, Anthony Gigliotti, Bernard Portnoy, Robert Luyben, Clark Brody, Mitchell Lurie, Robert Marcellus, Ignatius Genussa, and Stanley Hastey.[3] The mark of Bonade and his students on American teaching and performing on the clarinet was profound. These teachers (and others since Bonade and his students) have helped to develop pedagogies that have produced notable performers across musical and academic fields. This tradition is as rich as any across the globe and teachers proudly carry on and advance these teaching methods.

Concurrent to the developments of practice in the applied clarinet studio, academic educational researchers have analyzed the field of teaching deeply and several theories and philosophies have been developed. An exhaustive analysis of all potential theories is impractical for a single document. The focus of this work will center on behaviorism, cognitivism, and constructivism. Each of these is described in turn later

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[2] Carol Kycia, *Daniel Bonade: A Founder of the American Style of Clarinet Playing* (Captiva, FL: Captiva Publishing, 1999).
[3] Jerry Pierce, "*The Bonade Legacy*," *The Clarinet* 4, no. 1 (1976): 9.

in the review of literature. The development of these theories has its roots in psychology. They were then applied by education researchers to learning environments. These observations have been further expanded into the k-12 music environment by music education researchers.

Educators in many content areas familiarize themselves with the theories outlined and apply the results of this scientific inquiry to their teaching. These theories can impact the way that the teacher conceives of teaching processes and impact their outlook on how they conduct their work. These ideas can expand into philosophical constructs around teaching practices.

Anecdotally, reflecting on the work of educational theory and philosophy has deepened my own thought and affected the way that I practice and perceive my work. My music students have ranged from kindergarten to college and included the general music class, band, and applied studio. These theories and philosophies have impacted how I think of the skills that I want to give students and helped me to employ research from other areas of education. This engagement has personally created a rich perception of what music education is and how to practice. However, I have not been able to reach for similar research which directly addresses the applied clarinet studio.

Educational philosophies and theories give instructors in all content areas logical constructs from which their pedagogical methods can find grounding. These theories also allow for a rich collaborative exchange between research in education and the specific content area in which one practices. The community of clarinet educators that I have come to know are intelligent and fiercely devoted to educating their students.

Through engagement with the broader community of education researchers, the teaching practices may develop further and enhance our collective work as educators.

This case study investigates the teaching of a postsecondary clarinet professor in the United States who has achieved respected positions of note with regards to their pedagogy in the community of professional clarinetists. The professor participant had an agreeing student participant in this study. The investigation included a submitted video recording of an applied lesson and both the professor and student participant took part in interviews. The video observation and semi-structured interviews also helped in answering the following research questions:

1. How do collegiate postsecondary clarinet professors describe their teaching philosophy?
2. Do collegiate clarinet professors describe their teaching philosophy in a way consistent with any teaching philosophy or theory proposed by current research?
3. Can any known teaching philosophies or theories be observed in the postsecondary applied clarinet studio?

Qualitative research of this kind may be unfamiliar to some reading this document. It is therefore prudent to make a brief statement about qualitative research. A case study of this sort cannot achieve statistical significance. Rather, the goal of this work is to begin framing this area of inquiry into the applied clarinet studio. Through this description and this study, clarinet teachers at all levels may recognize similarities in their own work and engage with the broader education community to enhance their practice.

The framing described above is not meant to serve as validation or critique of the teaching observed. My intention is to prompt a more robust conversation between education researchers and collegiate studio instructors. In this way, stronger community may be built between education researchers and studio teachers. Education researchers may find the clarinet studio an interesting space for continued inquiry. Studio teachers may benefit from research done in education more broadly. There are many resources in the education community concerning the application of theories and philosophies. Many of these can surely be adapted to the collegiate studio through continued collaboration.

Chapter II – Review of Literature

Introduction

This research occurred because I was initially made aware of these theories during my undergraduate studies as an education major. I was later reintroduced to educational psychology in pedagogy classes that I took during my graduate work. The field of educational psychology is vast and I became curious as to how theories in this area may appear in the collegiate applied clarinet studio. However, one is always limited by their current awareness. My encounters with educational psychology had given me enough comfortability to see behaviorism, cognitivism, and constructivism in my own teaching and reflective practice. As I prepared to more formally investigate the theories at hand, I researched them more deeply. I also searched for other examples of this kind of work in the collegiate applied studio and could not find any directly applicable examples.

Behaviorism

Dr. Donald Cook (American psychology professor) noted in his article that behaviorism made its first forays into the academic world in 1913 in an article by Dr. John Watson.[4] At this time, Dr. Watson (psychology researcher and faculty member at Johns Hopkins University) stated, “Psychology as the behaviorist views it is a purely objective experimental branch of natural science. Its theoretical goal is the prediction and control of behavior. Introspection forms no essential part of its methods, nor is the

[4] Donald Cook, “Behaviorism Evolves,” *Educational Technology* 33 no. 10 (Oct. 1993): 62.

scientific value of its data dependent on the readiness with which they lend themselves to interpretation in terms of consciousness."[5]

Watson's description lends light to some key concepts about behaviorist observations. At possibly the most basic level, the behaviorist is focused on how subjects behave in their environment. Due to the interaction between the subject and a specific environment, the behaviorist is often interested in stimuli and an associated response. Behaviorist research is deep with many nuances. However, a definition of stimulus (sufficient for the purposes of this document) can be found in Dr. Ivan Pavlov's (Russian physiological researcher) book Conditioned Reflexes.[6] He states, "From this point of view the whole nervous activity of the animal must be regarded as based firstly on inborn reflexes. These are regular casual connections between certain definite external stimuli acting on the organism and its necessary reflex reactions."[7] Here, the researcher described a reaction by an organism to some external input from the environment (stimulus). He goes on to describe that the initial stimulus responses that an organism is born with are not sufficient to account for complex situations. However, other responses to stimuli can be learned after the birth of an organism.

Thought around stimuli has been expanded to the music education environment, and there are many which may come to mind during a typical studio music lesson. The stimulus may involve responses to the student, instructor, and various elements of the environment. From the perspective of the student, the teacher's affirmation or

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[5] John Watson, "Psychology as the Behaviorist Views It." *Psychological Review* 20 no. 2 (1913): 158.
[6] Ivan Pavlov, *Conditioned Reflexes: An Investigation of the Physiological Activity of the Cerebral Cortex*, ed. Gleb con Anrep (London: Oxford University Press, 1927).

[7] Ibid (16).

discouragement represents a stimulus. This affirmation or discouragement can occur in many ways: teachers may verbalize praise or correction to the student during or after performance; the teacher may use gestures to encourage or discourage a student's behavior; the teacher may even make use of their grading to reinforce or discourage certain behaviors. Similarly, the instrument itself may act as a stimulus for the student. A combination of fingering, air support, embouchure formation, and other factors will produce some result from the instrument, which in turn provides information/feedback to the student (and instructor). The student then responds to this stimulus positively or negatively with respect to the sound being produced. This may be observed in the student's facial expressions, verbalized (as an apology or frustrated expression, if negative), or could even result in the student stopping in the middle of playing.

The teacher also responds to stimuli during the lesson, given that the student's performance is a series of stimuli that the teacher experiences. The teacher may recognize the performance as satisfactory in some ways, yet deficient in others. In either case, the teacher is responding to the stimulus of the student's performance by potentially correcting the student's behavior with other observable stimuli. They may correct fingerings, posture, external embouchure, or even change the environment itself through the movement of equipment like the music stand, changing the venue of the lesson to a different space, or changing whether the student is seated, standing, or in some other position. All these examples are either an observable behavior to be performed by the student or a change in the environment itself meant to impact the student's performance.

Dr. Roger Rideout (music education faculty University of Massachusetts Amherst) noted some of the practical implications of behaviorist philosophy in the public schools.[8] There became a large push toward instructional efficiency and a strong emphasis on "behavioral objective(s)." One may view this as a question of what a student is expected to be able to do after the completion of a lesson. This may appear as objectives around what pitch the beginning band student could play at the end of a lesson or what rhythm could be better performed. In the applied studio, it may be expected that the student be able to perform a certain scale or exercise within a given degree of accuracy by the time the lesson concludes. This is a behavioral objective. It can be objectively perceived and measured.

Dr. Rideout further details that the application of stimuli and associated responses led to initiatives that provided responses of desired behaviors from students. Contests, medals, trips, rankings, and other such recognitions became more regular in music programs. Reinforcements like these can be seen across music education from early elementary programs through collegiate studies. Some began to ask if the student was learning music for the love and joy of making art, or if they were participating to receive external rewards for their efforts. In short, was the effort to receive a prize or express art?

Such conditions are also at work in the applied clarinet studio. Students may experience reinforcement from success at competitions, satisfactory grades at the conclusion of a lesson, compliments from their applied instructor, and a variety of other

[8] Roger Rideout, "Psychology and Music Education Since 1950," *Music Educators Journal* 89, no. 1 (Jan., 2007): 34 https://www.jstor.org/stable/3399882.

circumstances. The receiving of recognition does not necessarily cheapen the student experience, but a teacher may want to remain aware that such factors are at play when considering the effort a student is putting toward a particular project.

Cognitivism

Dr. Albert Bandura's (Stanford University psychology professor) 1971 book *Social Learning Theory*[9] provides context for not only his theory of the same name but also provides contextual understanding on his critiques against behaviorist thought. One criticism recognized in the work was that behaviorists "disregard the tremendous complexity of human responsiveness... When diverse social influences produce correspondingly diverse behaviors, the inner cause implicated in the relationship cannot be less complex than its effects." He further states that "a more valid criticism of the extreme behavioristic position is that, in a vigorous effort to eschew spurious inner causes, it neglected determinants of man's behavior arising from his cognitive functioning."[10] There was a clear concern from the author that theorists were not considering, to the degree he would've liked, the cognitive powers of an individual. People engage in complex behaviors that environmental stimuli and learned responses alone could not account for.

However, Bandura's critiques of behaviorist theory was not meant to discount the study entirely. Rather, he details that the field provided "an incomplete rather than inaccurate account of human behavior... In actuality, virtually all learning phenomena resulting from direct experiences can occur on a vicarious basis through observation of

[9] Albert Bandura, *Social Learning Theory* (New York: General Learning Press, 1971).

[10] Ibid (2).

other people's behavior and its consequences for them."[11] His theory attempts to account for "insightful and foresightful behavior."[12] People can learn not only from the consequences of their own behaviors, but by witnessing the consequences of the behavior of others. Individuals can control their own behaviors to some degree.

Dr. Paul Bélanger (professor of education at Université du Quèbec) brings this closer to classroom education by detailing the hallmarks of cognitivism in his text *Theories in Adult Learning and Education*. [13] He describes cognitivism as an approach focused on what is happening in the mind of the individual performing a behavior. While the behaviorist is focused on the observation of behaviors and the ability to predict or design environments that produce certain behaviors, the cognitivist is more concerned with the inner thought of the individual learner. Cognitivists are interested in how students store, process, and use information.

The studio teacher has likely experienced or considered the difficulties of attempting to teach every aspect of performing expressive content. At some point, describing how to express an articulation or what a resonant sound on the instrument means becomes prohibitively difficult. It is at these moments that a teacher may very likely pick up their instrument and demonstrate what the intended sound is to be. Bandura again provides that "some complex behaviors, of course, can be produced only through the influence of models."[14]

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[11] Ibid (2).
[12] Ibid (3).
[13] Paul Bélanger, "Theories in Adult Learning and Education," *Three Main Learning Theories*, ed. Regina Egetenmeyer, (Toronto: Barbara Budrich Publishers, 2011) 22-26, https://doi.org/10.2307/j.ctvbkjx77.
[14] Ibid (5).

This is not an uncommon approach for clarinet teachers to take. Personally, I can recall many times where the solution to a performance problem that the teacher proposed was not a directly addressed behavior. Rather, the solution to the problem at hand was one based around how I conceived the problem. This may occur in having the student imagine a musical context rather than stating a specific aspect of their performance that needs to be changed. A teaching example may look like having the student think of being in a concert hall to encourage a larger sound.

Questions surrounding prior knowledge and the experience that the student brings are of concern. The teacher is relying on the student's ability to imagine themselves in a space like a large concert venue. How is the performance struggle being framed? The performance struggle in this case is being framed into an experience of being in a concert hall. The volume of the student's playing need not be directly mentioned in this exercise. When teachers use such analogies with regards to playing, they are making inferences about the student's prior experiences and addressing not the specific quality of the playing to be changed, but rather how the student is thinking about their playing.

The work of Dr. Benjamin Bloom (Professor Emeritus in Education at the University of Chicago) may provide tools for the teacher working within educational cognitivism. Harvard University's Derek Bok Center for Teaching and Learning defines six levels of Bloom's taxonomy.[15] These include (moving from most base knowledge to most complex use): remember, understand, apply, analyze, evaluate, and create. None

[15] "Taxonomies of Learning," Harvard University, accessed April 10, 2025, https://bokcenter.harvard.edu/taxonomies-learning.

of these levels are necessarily better or worse than another. It is better to consider at what level a student is ready to engage. A clarinet professor concerned with how their student is thinking about certain content may knowingly (or unknowingly) move their student through Bloom's taxonomy to some degree. The example that follows sees a hypothetical clarinet teacher walk a student through the levels of Bloom's taxonomy.

An example of the cognitivist approach may appear in how some studio teachers address interpretive musical decisions. Professors will often lead students down a path of questions to help them better grasp the challenges presented by the phrase and access the needed prior knowledge in order to appropriately engage with the work. The teaching scenario may begin with a professor identifying a deficiency in expressive content during some portion of the work being performed. The professor may engage with the student by asking them to define a phrase and how they know there is one. A satisfactory response may be one roughly matching a music theory text used in the school. The student may provide an example of a period or a sentence. This kind of questioning is indicative of the remember level of Bloom's Taxonomy; it represents the most basic recall. The student is providing an answer to a question using previously relayed information without any addition or application. They are simply defining a phrase.

The prior remember level demonstrated simple recall. The repeating back of a definition does not demonstrate a complete understanding of what that definition means or how it functions. After confirming that the student has a definition of phrase with which the teacher agrees, they may ask for a demonstration of some level of understanding with respect to that definition. If periods and sentences were defined, the

teacher may then ask for a phrase to be annotated which meets one of those constructs. Cadences may be marked within this phrase, or it could be shown how the two parts of the phrase are proportionate with respect to the definition(s) provided. The student would be demonstrating the understand level of Bloom's Taxonomy.

The first two steps described above do not directly impact the phrase that the teacher initially raised as lacking musical intent. So far, recall of an acceptable definition of phrase and annotation of an already recognized phrase have taken place. The teacher may continue by asking the student to defend where a phrase exists in an area lacking musical intent (apply). The information known would then be independently applied to the novel problem of a new and unidentified musical phrase at this level.

Once the phrase is identified and labeled accordingly, conversation may shift to topics like the point of highest emphasis. Assuming that the work being studied is in the Western Classical tradition, phrase climaxes would generally be two thirds of the way through. The teacher may further lead the student through questioning that helps them narrow in on where precisely they would like the height of the phrase to be. This recognition of relationships within the phrase represents the analyze level of Bloom's taxonomy. Following this, determinations about the material surrounding the climax of the phrase would be made by engaging prior knowledge from other contexts.

The choices made at the analyze level may then be defended. What led to certain expressive decisions and why are they being performed? This would demonstrate an engagement at Bloom's evaluate level. Discussions may center around why there was a choice to crescendo or get slower toward a certain part of the phrase.

Finally, the teacher may challenge the student to come up with other solutions for the given phrase. Perhaps there are multiple solutions for dynamics, tempos, balance, and other expressive aspects. This would move into the create level. Can new ideas be created and known information disassembled into new and interesting constructs? Potentially, other expressive tools could be utilized to make different, yet equally valid, decisions.

The teaching episode described above need not all be accomplished in a single lesson. However, the result was an engagement with how the student thought about the phrase instead of how they followed specific instructions from the composer or teacher, how they are demonstrated specific movements of their hands, or some other visible/audible behavior. In this way, the teacher reframed a section of the piece that may not have construed as expressively meaningful. Prior knowledge was activated, and the concept of phrase was developed through Bloom's taxonomy.

The teacher in the prior situation was concerned with how the student was thinking of the work at that time (though the performance did inform the teacher as to the problem to be addressed). The ultimate result of the learning was expected to impact the student's performance, and it would likely still be evaluated in order to determine if the reframing and reconsidering of the problems addressed had the desired results. Therefore, the cognitivist teaching episode may end with a demonstratable behavior in the performance. However, the way the teacher got to the desired result was through a cognitivist approach.

It may further follow that the teacher and student will have demonstrable behaviors to address based on this new framing of the phrase. For example, the

problem may turn to how a student's pitch is impacted as they crescendo through the phrase. It may similarly turn to how a student's tone is affected. These behaviors could be adjusted within this newly constructed phrase.

Constructivism

John Dewey's 1916 text Democracy and Education[16] sets out many of the underpinnings of constructivist educational thought. Some of these foundational principles include the collaboration of teacher and student to discover the curriculum, the necessary involvement of community, and active participation in learning activities. Dewey saw the role of active participation from the student in creating the circumstances of learning to be vital. The student must be thoughtfully engaged in activity which they find to be useful and applicable to their life.

Lev Vygotsky (Russian psychologist and researcher) published his landmark text Thought and Language[17] in 1934. The zone of proximal development is among the most important contributions that Vygotsky makes in this text. He more closely relates this concept to the mental development of children. The child will present some level of individual proficiency with cognitive tasks. These demonstrations of matured proficiencies result in an ability to assign a mental age. However, Vygotsky argues that one cannot simply account for the fully developed faculties of the child. Analyzing the cognitive abilities requires acknowledging those things which could be done with some degree of guidance. While there are tasks that could be performed with help, there will

[16] John Dewey, *Democracy and Education: An Introduction to the Philosophy of Education* (New York: The Macmillan Company, 1955).
[17] Lev Vygotsky, *Thought and Language*, rev. And ed. Alex Kozulin (The MIT Press, 1986).

also be an intellectual ceiling at which time demonstrations can no longer be performed, even with assistance. This ceiling is different for every child. The area between what can be accomplished on one‘s own and what can be accomplished with some degree of assistance is the zone of proximal development.

Vygotsky demonstrates this by assigning mental ages in his work. A child may be able to perform tasks independently at the level of a ten-year-old. However, the child may be able to perform cognitive tasks similar to that of a twelve-year-old with some degree of guidance. This gap presents a zone of proximal development.

This concept is not restricted to children. Effective teachers are constantly assessing the learner’s zone of proximal development as they consider next steps in the student’s growth with older learners as well. The clarinet teacher is familiar with these circumstances in a variety of contexts. One could consider guiding a student through decisions about fingerings. The construct of when to use left and right pinky fingers on the instrument may be too rigid. A developing clarinetist may be proficient at planning how to switch between left and right pinky fingerings but may run into problems when it is time to plan sliding between the keys. They may attempt to slide in awkward directions (e.g. from right pinky C# to right pinky C natural). However, with teacher prompting about preferred motions when sliding, the student may then be able to determine a better option. The student’s mastery of pinky technique is therefore fully developed at the level of normal pinky switching, but assistance is needed within their zone of proximal development with respect to sliding.

The clarinet professor may then provide the necessary supports for students to achieve tasks within their zone of proximal development, but without the direct action of

the teacher. Such educational supports are described by Wood, Bruner, and Ross in *The Role of Tutoring in Problem Solving*.[18] This article focused on children, but the authors note how the work can be expanded to include those who are "less expert."[19] Scaffolding is described in this work and the authors expand on this as follows,

> More often than not, it (the social teaching) involves a kind of 'scaffolding' process that enables a child or novice to solve a problem, carry out a task or achieve a goal which would be beyond his unassisted efforts. This scaffolding consists essentially of the adult 'controlling' those elements of the task that are initially beyond the learner's capacity, thus permitting him to concentrate upon and complete only those elements that are within his range of competence.[20]

A student can be successful at completing certain tasks with the necessary support and guidance from a more knowledgeable teacher. The teacher in this case must first recognize this gap in what the student can achieve on their own and what they can do with more help. They must also know that the student can understand that the answers to the problems to be solved are true answers. For example, if a teacher is trying to help a student to perform with better intonation on the clarinet, it does no good to describe proper posture, instrument adjustment, and finger placement (all of which can impact the pitch) if the student cannot hear that they are out of tune to begin with. Wood et al. describe as much by stating, "In the terminology of linguistics, comprehension of the solution must precede production. That is to say, the learner must be able to recognize a solution to a particular class of problems before he is himself able to produce the steps leading to it without assistance."[21]

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[18] David Wood, Jerome S. Bruner, and Gail Ross, "The Role of Tutoring in Problem Solving," *Journal of Child Psychology and Psychiatry* 17, no. 2 (December 2006)
[19] Ibid (89).
[20] Ibid (90).
[21] Ibid (90).

There are many potential examples of this kind in the clarinet studio. One such example is air support. If the studio professor wants to help a student develop a fuller sound and more accurate pitch, one of the potential solutions may be how the student is supporting with their air. The learner should first demonstrate that they hear a difference in their sound and an appropriate model. This model sound could be from a professional recording, a colleague's sound, or even the teacher's sound. The student would have demonstrated that they can recognize an appropriate solution to the problem. However, they may struggle to produce that sound. It may very well be within their zone of proximal development to produce a fuller or more in tune sound. The question then becomes how to scaffold this learning. Teachers could then employ a variety of techniques to help the student achieve the desired result. I have seen teachers use tools to provide resistance to the student's belly to encourage engagement. Most specifically, I had a professor with a long, stuffed tiger (rather like a snake) that would be put around my belly as they gently pulled back to encourage lower support. I have seen other teachers direct students into certain poses. These poses require engagement of the muscles needed to support the sound properly. These teachers may direct students to move into these poses at particular moments where they lose support. In either case, the teacher is providing a support (scaffolding) within the students zone of proximal development to help them learn what it feels like to use their air properly.

Dr. Jerome Bruner (Professor of Psychology at Harvard University) made important contributions to the field of educational psychology broadly, but one of his most noted contributions was his book The Process of Education.[22] His text details

[22] Jerome Bruner, *The Process of Education* (Cambridge: Harvard University Press, 1960).

many aspects of curriculum; two of the most noted contributions of this text are ideas around discovery learning and spiral curriculum.

Dr. Bruner details discovery learning and asserts that it can “present the fundamental structure of a discipline in such a way as to preserve some of the exciting sequences that lead a student to discover for himself.”[23] Dr. Bruner provides examples of such processes in contexts outside of the music classroom and does so largely with respect to the young person. Specifically, he describes research conducted by the Harvard Cognition Project.[24] In this experiment, school children had just experienced a unit describing the relationship between economics and geography. The students were then given a map without location names and asked to identify the features discussed in class and provide plausible theories concerning the needs of a city and relationships to geography. The class participated in rich discussions and effectively identified these features. Their worlds became more colorful as they discovered for themselves that cities and their locations were not random. Rather, they had purpose and meaning. While this information was already known to society and professionals who work on city planning, the children got to discover these ideas for themselves.

The benefits of such a scenario are multitude. Dr. Bruner describes these advantages as follows: “(it provides) a sense of excitement about discovery-discovery of regularities of previously unrecognized relations and similarities between ideas, with a resulting sense of self-confidence in one’s abilities.”[25] One can extrapolate these ideas to many kinds of learners who are unfamiliar with a given discipline or topic. The clarinet

[23] Ibid (20).
[24] Ibid (21).
[25] Ibid (20).

studio is rich with opportunities for discovery learning. One such area occurs with respect to reeds and how they can be adjusted, maintained, and in some programs even made. Students are frequently given some level of reed advice and the way they make use of that information is a process of discovery. They will try different things with respect to scraping with knives, sandpaper, or other tools to yield some result. They may fail but always learn from the results of their efforts. They may experiment with reed cases and the humidity they maintain in those containers. Some will experience more consistency with their reeds and some may even grow molds. Again, they learn through a process of discovery and trial.

Dr. Bruner later details concepts relating to “spiral curriculum.”[26] In a spiral curriculum model, the learner can be introduced to what are ultimately complex topics in ways which are developmentally appropriate. The information can then be revisited later and refined or expanded. This process could be repeated several times with differing content as a student grows. This is apparent in the applied studio in several ways. One may be initially taught about finger placement on the clarinet from the perspective of covering the tone holes. The teacher may later spiral back to finger placement in order to refine placement of the pinky fingers. This may be refined further by curving the fingers. This process could continue to an ever more refined level until the student has achieved a proper hand position and finger placement.

Individuals grow in their environments and build constructs of the world around them through discoveries whether they were orchestrated by a teacher or not. Dr.

[26] Ibid (52).

Frederic Bartlett (Cambridge psychologist and researcher) makes use of the term scheme in his 1932 work Remembering: A Study in Experimental and Social Psychology.[27] Bartlett's work recognized connections made by research participants between representations of shapes and associations with purposes. From this recognition of purpose, a term would follow that matched that purpose. One may, for instance, associate an outline with an anchor or a carpenter's square with names for those shapes. Bartlett states, "Now in all these cases the name was given immediately and unreflectingly; for the presented visual pattern seemed at once to 'fit into' or to 'match' some preformed scheme or setting."[28]

This kind of "matching" or "fitting into" is a common occurrence. To use a more directly applicable example, people with different experiences may associate the term "sonata" with two different concepts (schemes). The musician may immediately associate the term with its theoretical implications about the structure of a work. However, others may think of a sedan model. The schemes that each person develops are shaped by their prior experiences.

Piaget (noted Swiss psychologist & faculty at the University of Geneva) furthered this work in order to understand child development and how their minds adapt to the world around them. He expanded on the work of Bartlett and developed a fuller schema theory in his work The Psychology of Intelligence.[29] The work begins with analogies to the biological, but through these analogies he explains both assimilation and

[27] Fredric Bartlett, *Remembering: A Study in Experimental and Social Psychology* (New York: Cambridge University Press, 1995).
[28] Ibid, 20.
[29] Hean Piaget, *The Psychology of Intelligence* (Totowa: Littlefield Adams & Co., 1972).

accommodation. He defines the terms as follows: Assimilation — "Mental assimilation is thus the incorporation of objects into patterns of behaviour, these patterns being none other than the whole gamut of actions capable of active repetition."[30] Accommodation — "The environment acts on the organism, and following the practice of biologists, we can describe this converse action by the term 'accommodation,' it being understood that the individual never suffers the impact of surrounding stimuli as such, but they simply modify the assimilatory cycle by accommodating him to themselves."[31]

The work of Piaget set much of the groundwork for schema theory. Practitioners may find the following definitions more helpful as they grapple with the terminology. These terms have been defined by Bohlin, Durwin, and Weber as follows: Assimilation — "A process of adaptation in Piaget's theory that involves fitting new information or experiences into one's existing way of thinking."[32] Accommodation — "A process of adaptation in Piaget's theory that involves modifying one's existing knowledge or creating new concepts when new information cannot fit into one's existing thinking."[33] Equilibration — "A process of maintaining a cognitive balance between our existing knowledge and new experiences."[34]

More contemporarily, constructivism as described by Dr. Joseph Shively (Associate Professor of Music Education at Oakland University) is not a "method"[35] of

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[30] Ibid, 8.
[31] Ibid, 8.
[32] Bohlin, Lisa, Cheryl Cisero Durwin, and Marla Reese-Weber, *EdPsych: Modules* (New York: The McGraw Hill Companies Inc., 2009), 563.
[33] Ibid.
[34] Ibid, 567.
[35] Joseph Shively, "A Dialectical View of Theory and Practice," *Journal of Research in Music Education* 49, no. 4 (Winter 2001): 129, https://doi.org/10.1080/10632913.2015.1011815.

teaching. It may be best to think of it as a lens through which the teacher approaches their practice. According to Dr. Sheila Scott (Professor of Music Education at Brandon University) and Dr. Shively, constructivism has been noted as difficult to define as it can be used in a wide variety of circumstances. This theory is a broad concept and can take many shapes. The exclusion of ancillary aspects or inclusion of other ideas does not fundamentally transform it into another idea. However, several aspects are noted as central by authors.

Dr. Sheila Scott leans on Piaget's schemata theory. These schemata are abstract constructs of information and how ideas relate to one another. Categories like woodwind, clarinet, flute, and how to differentiate between these would be examples of schemata.

The clarinet professor often finds themselves in a position where various topics come together in the practice of performance. Skills learned in academic classes like music theory and musicology have practical implications in performance that the studio teacher often helps the learner to reconcile. It is for this reason that the categories of concern to the collegiate clarinet studio professor are multiple and could include concepts ranging from articulation to musicological information, music theory, clarinet design and equipment, and could range to as far as their students need. An example of this may be how an entering clarinet student may have a construct of clarinet which is too limited. Their exposure to the instrument may limit them to the modern French instrument exclusively. This schema would be challenged by their education in ways described below.

Dr. Scott's work asserts that the learner in a constructivist setting is either assimilating or accommodating previously held schemata as they move toward equilibrium. Equilibrium is a state where the student's schemata can account for the ideas they hold. The assimilation process involves the incorporation of previously unknown concepts into already formed schemata. In this way, the schemata itself does not need to be changed to incorporate the new ideas which challenge it. The learner's schemata may at other times be challenged too much by new ideas and existing schemas will be forced to accommodate the new learning. The new idea will render a change to previously held ideas. The end result of either state is toward equilibrium. The process described is the work of the student in "cognitive constructivism."[36] The student is tasked to move through challenges to their previously held conceptions with the guidance of a more knowledgeable other (the teacher).

Returning to the entering college clarinet student, their beginning concept of the instrument may be exclusively of the modern French design. This construct would be challenged upon learning about the German system and the associated schemata would have to change (accommodate). The actual construct of what the instrument is would be fundamentally challenged. Schemata would further be challenged upon learning of metal clarinets more popular earlier in the 20th century.[37] The student's actual schemata representing the concept of what a clarinet is changes with these challenges in order to more accurately represent the world around them. However,

[36] Sheila Scott, "Contemplating a Constructivist Stance for Active Learning Within Music Education," *Arts Education Policy Review* 112, no. 4 (Aug. 2011): 191, https://doi.org/10.1080/10632913.2011.592469.
[37] Aleah Fitzwater, "The Rise and Fall of the Metal Clarinet: A Brief History," *The Clarinet Online* (July 2022), ht tps: //clarinet.org/the-rise-and-fall-of-the-metal-clarinet-a-brief-history/.

certain ideas like the cylindrical (or polyclinical) nature of the bore cannot be challenged. Within a schema of the clarinet as a single reed instrument with a cylindrical bore, early clarinets and modern instruments both fit. Clarinets of varying materials and mechanisms can also be assimilated into this construct. The example of how to conceive of a clarinet is but one example of the many schemata that interact with each other in the applied clarinet studio.

Another example of how a student's schemata could be challenged may include performance practice and style periods. A student who has played a great deal of German Romantic period literature may feel comfortable assimilating new information about a piece from the period. Such a work would be like those they have already performed. Expressive markings, phrase structure, and forms would likely not be fundamentally different between works. The nuanced differences in the new composer's particular style may need to be examined, but the fundamental basis of their prior learning is not necessarily challenged. Contrastingly, the same student may struggle a great deal with composers like Igor Stravinsky or Joan Tower, whose works represent vastly different performance practices due to their later style period when compared to the German Romanticists. Examples like these would require a deep examination of how a student conceives of concepts like musical phrase. This may require redefining the concept personally and their new construct of these ideas will render not just an addition to the category of phrase, but a reconstructing (accommodating) of the whole idea. This new conceptualization will be able to account for all currently held information about this content.

Social Constructivism

Social constructivism occurs during social interaction where group collaboration and the challenges presented by others are the contexts in which learning occurs. Dr. Scott expounds on the idea of "social constructivism."[38] The group holds the learning and knowledge in this model. One such case in the applied clarinet studio may be articulation studies; there are many ways that students articulate on the instrument. While common phrases are used in the education community about how to articulate on the clarinet, students may articulate in different ways that have not been considered by their peers. An educator with a constructivist philosophy may use this varying knowledge to challenge the group of students to learn how others articulate on the instrument. Classmates may find that some of their peers use the tip of their tongue, others the bottom, others may use the top and middle of the tongue (anchor tonguing), and of course varying degrees of pressure. The social constructivism at work leads to insights as to how others perform and the advantages/disadvantages of various methods. This group collaboration and knowledge building would be an example of social constructivism. The class as a whole now has a language and knowledge of this concept unique to them in this environment.

The two concepts described by Dr. Scott present a difficulty in clearly defining constructivism. Where is the knowledge held? Is the knowledge held and constructed by the individual, or is the knowledge held and constructed by the group?

[38] Sheila Scott, "Contemplating a Constructivist Stance for Active Learning Within Music Education," *Arts Education Policy Review* 112, no. 4 (August 2011): 191, https://doi.org/10.1080/10632913.2011.592469.

This quandary between cognitive and social constructivism leads Dr. Scott to point out two consistent areas of constructivist philosophy: 1) the learner gains knowledge by "interacting with their environment"[39] and 2) The "learner construct(s) knowledge actively rather than receive information passively."[40] These two aspects are central toward building a consistent understanding of constructivist philosophy. A third implicit aspect of both areas is the student's incorporation of their prior knowledge. In both social and cognitive constructivism, the student is challenged to bring their own prior knowledge to the learning and have it tested genuinely by the environment. Dr. Joseph Shively adds two qualities to this general description of constructivism: 1) "It (constructivism) is about how we make meaning of our experiences and come to know the world."[41] and 2) "A teaching practice in which learning and teaching have a symbiotic relationship."

These final two propositions by Dr. Shively have been detailed by renown professor and philosophical researcher Dr. Estelle Jorgensen (Music Education Professor Emerita, Indiana University) as a kind of dialectic approach.[42] In such a position, the stance of the teacher is to seamlessly glide in and out of an instructor and co-learner role in order to authentically engage with students as they explore. Instructors may suggest alternatives or new approaches and encourage pupils to try new ideas to solve problems. The educator remains the content expert and offers ideas

[39] Sheila Scott, "Contemplating a Constructivist Stance for Active Learning Within Music Education," *Arts Education Policy Review* 112, no. 4 (August 2011): 192, https://doi.org/10.1080/10632913.2011.592469.
[40] Ibid.
[41] Joseph Shively, "A Dialectical View of Theory and Practice," *Journal of Research in Music Education* 49, no. 4 (Winter 2001): 129, https://doi.org/10.1080/10632913.2015.1011815.
[42] Estelle Jorgensen, "A Dialectical View of Theory and Practice," *Journal of Research in Music Education* 49, no. 4 (Winter 2001).

that may not have considered through guidance. The teacher and student learn together and discover both the instrument and music collectively.

Co-learning and discovery can be seen in an applied clarinet lesson. One such example may center around experimenting with extended techniques. What works for one student may not work for another, and both teacher and student will experiment with the instrument to make the desired sound. Perhaps the teacher experiments more with their instrument and finds another technique that produces the sound with which the student is struggling. The solution may be similarly found by the student themselves. The goal is to reach the desired sound on the instrument, but both teacher (who may be able to produce the desired sound) and student are experimenting to find what technique is most effective for that individual.

Constructivism Conclusion

In total, the authors give five consistent aspects of constructivist philosophy: 1) The learner gains knowledge by "interacting with their environment." 2) The "learner construct(s) knowledge actively rather than receive information passively." 3) The student is challenged to bring their own prior knowledge to the learning and have it tested genuinely by the environment. 4) "It (constructivism) is about how we make meaning of our experiences and come to know the world." 5) "A teaching practice in which learning and teaching have a symbiotic relationship."

Summary Applied Studio Practice

While each of these philosophies and theories are presented separately, they need not exist exclusively. Teachers may utilize different ideas from each of the presented philosophies with different students or in different circumstances with the

same student. These theories ground the practices of teachers and help curriculum designers develop their work. Studio professors are often given a great deal of autonomy with respect to how they teach their students. In this way, they are the teacher/practitioner and the curriculum designer. It is the goal of this research that collegiate clarinet professors may benefit from the broader educational literature to develop richer experiences for their students

Prior Research

Researchers use the described theories to ground the observations that they wish to make and measure in their work. They may investigate specific student behaviors and the impact that teacher interactions have on those behaviors. Does teacher interaction increase or decrease the occurrence of a behavior? This kind of question and the associated measurements are informed by behaviorist psychology and observational research methodologies. One such example of this kind of research is found in the study done by Dr. Douglas Greer (Professor of Psychology Columbia University) et al.[43] This study sought to determine if adult approval or disapproval impacted the music selection of students. The student participants were in the fifth-grade and had their music listening habits recorded with a device both before and after the testing episode where the researcher expressed approval or disapproval to varying degrees.

The details of this study are not necessarily of concern. Rather, it is the behavioral analysis being performed that I would like to note. The researcher

[43] Douglas Greer, et al., "Adult Approval and Students' Music Selection Behavior," *Journal of Research in Music Education* 21, no. 4 (Winter 1973), https://doi-org.ezproxy.lib.ou.edu/10.2307/3344908.

determined that the students' listening behaviors were the focus of the work. They then tested if the stimuli of adult approval or disapproval had any impact on their listening habits. There is a connection in this work to behavioral psychology.

Others use such theories to describe the teaching environment in which they would like to perform their research. This is exampled by researchers like Dr. Amy Beegle (professor of music education University of Cincinnati).[44] Her study investigated how students worked together to explore improvisation in the general music classroom. The kind of exploration and group work that she analyzed had a grounding in constructivist teaching philosophy. This is noted by the author to theoretically support the observations in her work.

This kind of grounding has not yet occurred in the postsecondary clarinet studio. Research in identifying the presence of these theories and philosophies is a logical place to start if communication with the research community more broadly is desired.

There has been limited work considering the application of some of these theories to the woodwind studio more broadly. Dr. Katherine Cho experimentally created a flute studio modeled off of constructivism.[45] Her learning environment was very true to constructivist practices and followed a series of ten group instruction episodes.

The study designed was primarily focused on creating a constructivist studio environment. Her study was true to the expectations of this learning environment and

[44] Amy Beegle, "A Classroom-Based Study of Small-Group Planned Improvisation with Fifth-Grade Children," *Journal of Research in Music Education* 58, no. 3 (Oct. 2010).
[45] Katharine Cho, "A Constructivist Approach to Studio Instruction: A Case Study of a Flute Class" (PhD diss., Columbia University, New York, 2010), ProQuest Dissertations & Theses Global.

involved group learning sessions and student collaboration. Collaboration was particularly beneficial for her work due to the varying levels of students in her study.

However, this left questions for me about current practices in the collegiate clarinet studio. How are teachers training aspiring professionals? Is there more at play than constructivism in the applied studio? Can the thoughts of practicing teachers be reflected by current educational theories and philosophies? These questions spurred the research in the following chapters.

Chapter III – Methodology

Introduction

The goal of this research was to examine the postsecondary clarinet studio for the occurrence of three recognized educational theories (behaviorism, cognitivism, and constructivism). Such observations have not been formally made with respect to this teaching environment. The purpose of this study was also to bring the fields of clarinet studio instruction and education research into closer conversation. By doing so, instructors may be able to more readily benefit from the research performed in education and researchers may expand their investigations into the collegiate applied studio.

Miksza et al. describe several definitions of case study in their text Music Education Research: An Introduction.[46] The research conducted meets the characteristics described by the authors. Their conclusions about the typical characteristics of a case study follow:[47]

- Adoption of a *single* case, or limited number of cases as the subject of the study.
- Establishment of an *object* for the study, meaning an analytical or theoretical frame through which the case is viewed. The object can also be described as a broader class or phenomenon of which the case is an instance.
- An emphasis on *depth* and *peculiarity* rather than generality.
- Clear establishment of the case's *boundedness* with regard to time and place.

[46] Peter Miksza et al., Music Education Research: An Introduction: An Introduction. New York, Oxford, 2023.
[47] Ibid (161).

- Examination of cases within *naturalistic settings,* taking *contextual conditions* into account.
- Use of *multiple methods* of data generation to promote a multidimensional view of the case.
- *Theorization* about a phenomenon of interest supported by examination of specific manifestations (i.e., cases) of that phenomenon in depth and from many perspectives.

This case study focused on the single case of a postsecondary applied clarinet lesson. The teaching practices and thoughts of the educator were the primary object observed, and these thoughts/practices were the primary focus of the study. Due to the limited nature of the case, it is highly focused on depth of observation and cannot be generalized to other instances of applied study. The case is bound to a single instance of a collegiate clarinet lesson and the thoughts expressed in the interviews with the two participants. The study further examined the participants within a naturalistic setting and considered the context of the interaction. This investigation was conducted in two ways. First, an applied lesson was recorded and observed. Second, the participants each agreed to an individual interview. Finally, the data gathered was viewed through three theories of education. This analysis supports the satisfaction of expected characteristics within a case study.

In order to more easily facilitate the communication of findings in Chapter IV, I assigned pseudonyms to both participants. The professor will be referred to as Professor Smith, and the student will be referenced as Mary.

Professor

The instructor participant was selected due to meeting the following required criteria:

1. Current clarinet professor at a US postsecondary institution.
2. Held respected positions in the community of clarinet professors relating to their pedagogical expertise.

The professor possessed approximately twenty years of teaching experience, with most of it being at the same institution. The program at which the professor taught offered degrees in performance, music education, music history, and composition. The school offered several of these programs at both the undergraduate and graduate level. The clarinet professor, therefore, instructed applied lessons at both the undergraduate and graduate levels. This instructor had held respected positions in the clarinet community concerning their pedagogy through their service in publication and organizational leadership with the International Clarinet Association (ICA). They also led an active career as a performer, appearing with professional orchestras, at a variety of international conferences, and expanded the repertoire of the clarinet through commissioning new works for the instrument.

Student Participant

This research was designed to observe the interaction between an applied clarinet professor and their student. It was important for the student to be serious about their studies and, while any student could have the intent of being a professional, the stated major of clarinet performance served as an analogue for this. The student participant in this study qualified by meeting the following required criteria:

1. Studying with the participating professor at the time of data collection.
2. Pursuing an undergraduate degree.
3. Majoring in clarinet performance.

The student had taken lessons for several years on clarinet and actively participated in music contests prior to their collegiate studies. At the time of this study, the student was in their first year in the professor's studio and concurrently pursuing an additional music degree (not in education or performance). This student was active in their institution's performance ensembles.

Data Collection

Data were primarily collected using two methods: observation of a recorded lesson and individual interviews. I first asked the participants to send a video recording of an applied studio lesson. This lesson was a regularly scheduled meeting between the student and professor. No requests were made to the professor or student as to the material to be covered or what should take place during the lesson; they were instructed to simply share a recording of a typical lesson.

The second method of data collection was the conducting of two separate interviews with each participant over Zoom. Interview topics and protocol questions were largely written prior to the start of the study; additional questions were included following the lesson based on what I observed. There were two reasons for conducting separate interviews. The first of these was the potential availability of participants. I wanted to allow for participants to speak in locations of convenience and comfort to protect anonymity. This was most readily accessible through Zoom conferencing. I was also located a great distance from the participants, and a Zoom interview was also

appropriate for this reason. Secondly, the interviews were to serve as an opportunity for each participant to express their thoughts concerning pedagogy, the roles of the student and teacher, and other pertinent topics free of influence from the other participant. The conducting of separate interviews allowed for an environment where both participants could feel free to express their thoughts without concerns of what the other participant may think.

The decision to conduct interviews after the lesson was purposeful. It would have been impossible to ask questions about the lesson without observation of the lesson to be referenced. Also, examples of teaching and learning did not need to be hypothetical. Rather, the participants could recall the actual observed lesson.

Lesson Observation

Extant literature does not reflect a deep repository of applied clarinet teaching episodes to reference for information. It was, therefore, prudent to gather data from a current applied lesson for this study. The lesson observation served as a demonstration of the applied professor's teaching from which data could be gathered with respect to teaching practices. The information from this observed lesson was then correlated with interview responses to triangulate data and draw conclusions about the likeliness of certain teaching theories present in the professor's work with this student.

Miksza et al. provide the following definition of triangulation, "Qualitative researchers will often consult multiple data sources with an eye toward how they corroborate or possibly contradict one another, permitting deeper analysis of the phenomenon than any single data source might offer alone. This is called triangulation

of data sources, a strategy for enhancing a study's credibility..."[48] The use of lesson observation, a professor interview, and a student interview allowed for the kind of data analysis described. If a teaching practice is demonstrated in the lesson, and described by both participants in their interviews, then this strengthens the conclusions drawn in their validity. For example, if the professor performs their instrument for the student, describes modeling as important to their teaching practice, and the student confirms that this practice happens frequently, one could make confident conclusions about this aspect of the instructor's work.

The participants recorded a regularly scheduled lesson. The lesson occurred at the end of a spring semester using equipment chosen by the participants. The recorded lesson took place in the professor's studio and was submitted to me electronically. The camera captured the entirety of the active teaching environment but did not include the entire space of the applied professor's studio. Audio was clear and I was able to discern all dialogue between the professor and student.

After submission of the lesson video, I transcribed all verbalizations, noted activities, and detailed other pertinent observations. I then examined and coded (labeled) the data for behaviorist, cognitivist, and constructivist teaching practices. These teaching theories were predetermined prior to conducting the research and limited for the purposes of this document.

[48] Peter Miksza et al., *Music Education Research: An Introduction: An Introduction*. New York, Oxford, 2023. 120.

Interviews

Semi-structured interviews followed observation of the lesson. (The IRB approved interview protocol is attached in the Appendices.) As described by Miksza et al., “A semi-structured interview protocol typically includes some predetermined questions but also affords flexibility for the interviewer to pursue topics that arise spontaneously during the conversation.”[49] Consistent with this definition, there were precomposed interview questions to help guide this interview derived from the existing literature discussed in Chapter II.

In both interviews, the questions in the first section (teaching philosophy for the instructor and general lesson questions for the student) were designed to better understand the nature of the teacher/student relationship. Does the educator view themself as a co-learner, or do they see themself as a more direct instructor? Similarly, does the student see the instructor in these ways?

The observed lesson questions seek to answer questions about the thoughts of the participants, typicality of the lesson observed, and how they came to perform the way they did in the lesson. These questions were constructed prior to the study, but had necessary additions specific to the content of the recording. I had no exact expectations as to the direction with which the participants would take their answer. This form of interview allowed the instructor and student to have the freedom to explore their thoughts concerning the question at hand.

[49] Ibid (137).

Professor Interview Protocol Question Categories

I began by asking the instructor a series of questions relating to their teaching philosophy. These questions were meant to address the professor's general thoughts around their teaching, the role of a teacher and student, how they prepare and reflect, and the evolution of these thoughts over time. The second category (Observed Lesson Questions) served to use the lesson as grounds to explore their thoughts on teaching individual students. Many of these questions relate to the degree of malleability the professor has relative to each student. Some of the questions attempt to answer the following:

1. To what degree are you flexible to with respect to student interests?
2. Are your lessons highly standardized or different from one student to the next?

The final category of this interview served as a space for the researcher to engage with questions which came up during the lesson observation. These were composed after observing the lesson. These two questions reflect potential thoughts on how the instructor identifies with the student and further exploration of preference with a lesson example. The instructor used many pluralistic pronouns with the student. This kind of inclusion presented some potential identification with and inclusion of the student with the teacher. These were potential markers of co-learning or a view of the student as a fellow musician rather than a passive receiver of instruction. The second question rather directly addressed thoughts around student choice and preference with respect to the repertoire being studied.

Student Interview Protocol Question Categories

The student interview was also broken into three parts. The first of these (General Lesson Questions) related to how the student interacted with their applied instructor and how they influenced their work. Some of these questions also mirror the applied professor's questions. Those that mirror the applied professor's allow for the student to communicate if they have the same expectations as their instructor as to the role they have in the lesson interaction. These questions may also serve to show if the student is reflecting on their own work in a way consistent with the education theories described in Chapter II.

The second section of the student interview protocol served to clarify the student's thoughts, preparation, and experience with lessons in their professor's applied studio. This would again provide the opportunity for confirmation of other observations about the lesson or serve to give the student a chance to speak on misconceptions that I may have drawn concerning my observations.

Data Analysis

The lesson was recorded for later reference and transcription. It was transcribed by me without the aid of any software tools. Following this transcription, I reviewed the written transcript while watching the recorded lesson. I then highlighted the transcript when a behavior or speech was identified as behaviorist, cognitivist, or constructivist in nature. The interviews were also recorded for later reference and transcription. They were similarly transcribed and highlighted for the occurrence of evidence relating to the practices investigated.

Teaching practices and descriptions were labeled according to the following:

1. Behaviorism – A behaviorist practice was marked when one of two behaviors was observed. First, the teacher could give direct verbal instructions. A verbal instruction to place the fingers in a certain way would meet this qualification. Second, the use of touch would also be labeled as behaviorist. This stimulus would influence how the student was behaving.
2. Cognitivism – A cognitivist teaching practice or belief was recorded when the instructor demonstrated a specific behavior to directly affect the student's performance, or if they engaged the student in questioning or engagement of their prior knowledge to impact how they thought about or approached a performance problem.
3. Constructivism – A constructivist teaching practice or belief was recorded when the instructor referred to how the student viewed themselves as a part of the broader community of clarinetists. A practice or belief was also described as constructivist when the teacher had the learner work independent from the teacher on projects.

Chapter IV – Findings

Introduction

I would like to first make clear the complex nature of the applied lesson observed. The interaction was one that did not lend itself to any one teaching modality. The applied studio is often the stage of a unique teaching interaction in which the student and teacher collaborate, model, create, and learn. This lesson was no exception to that notion. I also would be remiss if I did not acknowledge the respect and care that the student and teacher displayed for each other — both in the lesson and in their individual interviews. The following analysis of the submitted lesson should not be interpreted as a critique of the teacher's work. Rather, this analysis should be understood as an approach to glean more information about the teacher/student interaction and how the previously detailed teaching theories may or may not describe the lesson.

The lesson observed can be divided into three primary sections. Below is the approximate amount of time spent in each section of the lesson and a representative description of the repertoire studied.

1. Scales and Exercises ~ 19:00
    a. *24 Varied Scales and Exercises for the Clarinet*, Albert, Jean-Baptiste, ed. Julie DeRoche, pg. 20[50]
    b. *Vade Mecum*, Jeanjean, Paul, pg. 1[51]

[50] Jean-Baptiste Albert, *24 Varied Scales and Exercises for the Clarinet in All Major and Minor Keys*, ed. Julie DeRoche (New York: Carl Fischer, 2018), 20.
[51] Paul Jeanjean, "*Vade-Mecum" Du Clarinettiste* (Paris: Alphonse Leduc, 1927), 1.

2. Etude ~ 26:00
    a. *32 Etudes for Clarinet*, Rose, Cyrille, no. 13[52]
3. Solo piece ~ 5:00
    a. *Clarinet Sonata*, Hindemith, Paul, mvt. IV[53]

In the following pages, I will address the recorded lesson and how the interviews augment the observation. The focus of this document is to glean further insight into postsecondary clarinet teaching through the lens of recognized educational theories. It is for this reason that the sections of this chapter are first divided into headings of each theory. They are then subdivided into the lesson sections described prior.

Behaviorist

1. Scales and Exercises

Considering the analysis criteria in Chapter III, the observed teacher demonstrated a largely behaviorist philosophy during the portion of the lesson devoted to scales and exercises. The teacher's attention was focused on clearly demonstrable behaviors that the student exhibited. One such example was the use of correct fingerings. This action was either observed or not. The teacher then made corrections as needed to the student's execution of fingerings, but there was largely no response beyond assisting the student to achieve the proper behavior of finger motion. This was demonstrated in the lesson during the performance of a B Major scale. The following example focused on the use of pinky keys as the student began the clarion portion of the scale:

[52] Cyrille Rose, *32 Etudes for Clarinet*, (New York, Carl Fischer, 1932).
[53] Paul Hindemith, *Sonata in B-Flat Major*, (New York: Schott, 1940).

Professor Smith: Right, in the speed of technique particularly, we want to think about leaving pinkies down where we can. So, if you can start from the e so you, even on the d# to the e, only have to lift the third finger. Then, here to here you only have to lift this (showing on their instrument). You don't have to do the pinky jumps.

Maria: "Yeah, I don't know why I did that."

Professor Smith: "So, can you try that." The teacher points to the page

Maria: "Yeah."

Professor Smith: "and see if you can keep the fingers a little smoother."

Maria: Performs exercise from the second measure, starts on e. They then Hesitate in the area discussed with the teacher.

Professor Smith: "Yeah. See. you don't have to lift that." The teacher points to the student's pinky finger. "Do it again."

Maria: Plays the scale.

Professor Smith: Aha!

Maria: Okay.

Professor Smith: Yeah.

Maria: Continues playing.

Professor Smith: Yes.

In this excerpt, the teacher pointed out a deficiency in the student's economy of finger motion. They then issued a corrective suggestion. The suggestion involved

leaving fingers down wherever possible; this was especially true of the pinky keys. This concept is reinforced, but it happens through speaking instructions. The teacher does show this behavior on the instrument, but they are using it as a tool to facilitate the conversation more than to teach a new concept. The student saw the teacher's fingers moving but played with the d# key on their instrument instead of mimicking the teacher's fingers as demonstrated. They appeared to already understand this idea by saying, "Yeah I don't know why I did that."

However, when Maria began playing again, the finger motion was not satisfactorily observed. The teacher then issued another correction through pointing at the student's finger and verbally stating, "Yeah. See. You don't have to lift that." The student then continued playing in a satisfactory way. This was affirmed by Professor Smith.

Professor Smith became particularly interested in Maria's efficiency of finger motion toward the end of the scales and exercises portion of the lesson. This prompted a brief introduction to and utilization of the *Vade Mecum* left-hand exercises. The teacher gently brought awareness to the student's change of finger and hand position by touching and correctively placing the fingers on the instrument. Professor Smith brought awareness to Maria's finger and hand position by touching the hand. In this way, the teacher's touch is a stimulus to which the student responds. An excerpt of this practice follows:

> Professor Smith: "Can you try a little bit of that first line?" This was a reference to the *Vade* Mecum. "and just let's see what you do."

Maria: Begins playing the exercise.

Professor Smith: After a brief period of student playing: “So already” that finger’s gotten really close.” Professor smith gently touched the middle finger of the left-hand and wiggled it as they said this.

Maria: Looks down at their hand. “Mhm.”

Professor Smith: “So see if you can hover over the rings over the holes.” This referred to the left-hand middle finger.

Professor Smith: “Yeah, and do try to hold that finger there.” The professor gently places the student’s left-hand pinky finger.

Maria: Looks at placement of the finger

Professor Smith: “Yeah. Try it.”

Maria: Begins playing exercise again.

Professor Smith: “Mhm. Good.”

Portions of this part of the lesson also demonstrate social cognitivist learning of the kind that Bruner described. This is elaborated later in the cognitivist portion of the chapter.

Additionally, the teacher would adjust the environment to impact student performance. Both the teacher and student were seated for the duration of the submitted lesson recording. Professor Smith became interested in the Maria’s posture and responded to this by raising the music stand. This action was taken instead of describing how the posture should have been different. Moving the music stand in this

way is common in the applied clarinet studio, and it encourages better posture. This adjustment was a response to incorrect posture, and Maria reacted in a way which was satisfactory to their professor.

The student responded to stimuli outside those brought by the teacher. Maria showed displeasure at their own mistakes through facial expressions and would even stop playing to apologize to the professor for their mistakes. Professor Smith did not need to stop and correct the student in these instances. Instead, the student's instrument provided the stimulus. Maria knew immediately that they had made an error due to the response from the instrument.

2. Etude

There was a significant amount of behaviorist thought around this portion of the lesson as well. The performance of the student did serve as a stimulus to which the teacher responded. However, this response was not wholly different from the kinds of responses in the scales and exercises portion of the lesson.

3. Solo

The teacher used their hand gestures and words to direct Maria. She would respond to these inputs from the teacher. These kinds of gestures directly influenced Maria's performance and the desired behavior was more closely achieved. This occurred at various times. One such occasion was to encourage how the student performed the end of the second measure. The teacher used their hand to direct the student over the tied rhythm and continue with both the phrase and their air.

Cognitivist

1. Scales and Exercises

Professor Smith demonstrated social cognitivist teaching practices through their use of modeling for the student. A prominent example of this occurred while Maria wasbeing introduced to the *Vade Mecum* exercises by Jeanjean. The teacher introduces the book and the purpose of these exercises (at least within the context of this lesson) as follows:

> Professor Smith: “... The first section we’re going to look at just thinking about that minimal pinky motion that we talked about...” They did this while placing the iPad with a copy of the music on the stand.
>
> Maria: “Mhm.” They were also looking at the music
>
> Professor Smith: “... earlier in one of the scale exercises.” The teacher demonstrates with their instrument. With the clarinet still in playing position, “Take a look at my pinkies.”
>
> Maria: Directs attention to the teacher’s hands.
>
> Professor Smith: After performing the first exercise. “What do you notice?”
>
> Maria: “That’s not moving.” They point at teacher’s right hand.
>
> Professor Smith: “Yeah! And I never actually take my pinky off the key.” The pinky on left-hand remains in contact with the key while playing.
>
> Maria: “Mhm.”

Later, as the teacher continues explaining the exercise and how they use the book with their students, Maria can be seen mimicking the motions shown to them by the teacher in the initial introduction. The student in this case is clearly demonstrating that they are learning about this conservative use of finger motion from the teacher as a visual model.

2. Etude

There are moments in the etude portion of the lesson where the professor heard passages which lacked some musical purpose. Professor Smith wanted Maria to have more direction in what they were playing. They proceeded to guide her toward a context from which she could better understand the music. This instruction seemed to be addressing not just a correct way of performing a phrase, but rather how the student was thinking about the phrase.

In the example that follows from the observed lesson, there was a line of questioning to get the student to conceive of the phrase differently. This line of questioning begins with the teacher framing the problem perceived in the student's performance. They then call on the student to retrieve and apply prior knowledge. The teacher then affirms the student's answers.

1. The professor pointed to the initial idea that the phrase needed more expression and had a kind of meandering quality.
    a. Professor Smith: "So, how can this have a little bit more direction? It's kind of like we're wandering and looking for tonic."

2. The professor connected the etude being studied to prior learning and prompted the student to recall sequencing concepts taught earlier.
    a. Professor Smith: “So, it’s eh that’s not quite right, maybe this, maybe this, but it’s almost sequential right? We’re coming into these sequences here right? The triplet triplet triplet...” Professor Smith points at the music. “...and remember back when we did those in one of the other etudes? What did we do with those sequences?”
3. The professor affirmed that the student was now thinking of the appropriate concept and asked the student what to do with a sequence.
    a. Professor Smith: “What do you want to do with it? Musically?”
4. The student supplies an answer of increasing the dynamic.
    a. Maria: “Umm. Like keep growing.”
5. The professor affirmed this answer.
    a. Professor Smith: “Yeah, exactly, so (teacher writes on music) what I might do is mark this one as kind of a level one, this level two, and this level three.”

Professor Smith was also concerned with how the student was thinking of subdivision during the etude studied. They had the student perform a passage from the work with the desired subdivision audibly articulated during long note durations. It was then asked that the student perform the same passage without the articulations. This is not an uncommon practice when teaching rhythm. However, the instructor is left to rely on a change in how the student is thinking about the rhythmic passage. The idea of subdivision is to have it be invisible and imperceptible to the audience. Rather, it is a

mental construct for the performer. In this way, the instructor is teaching the student to take what would be a behavioral demonstration and turning it into a mental construct resulting in the correct rhythm of sustained notes.

3. Solo

Maria performed from the start of the Hindemith *Clarinet Sonata's* fourth movement. However, Professor Smith quickly responded to the dynamic that the student was playing. An instruction to play a little louder or use greater air support would be a behaviorist interaction. However, the instructor took this a step further. They used a series of questions to engage the student's imagination of the actual performance environment where the assessment of their performance would take place.

Professor: "Yeah and, you know, I think you could think more of a mezzo piano at the beginning and don't feel like you have to walk on eggshells… Which room did you get for your jury?... You're going to be playing in a big space… So, you can be thinking about. Think it up a little bit right."

The professor called on Maria imagine the larger hall where they would ultimately be heard. In this way, Professor Smith encouraged a more supported and slightly louder sound to fill the space. The teacher demonstrated the desired sound, but called on the student's framing of the sounds being made in order to change them.

Another example concerned the volume and presence in Maria's sound. They asked the student to perform at a louder dynamic and the student stated a concern about pitch. The concern about pitch kept the student from producing the desired volume from their instrument during a large leap. The teacher addressed this concern

with a suggested fingering technique. The solution to the pitch problem provided by the teacher was the observable behavior of altered finger movement. However, the student could be seen looking at the teacher's hands and mimicking how they were moving. Immediately following the verbal instruction and finger demonstration, Professor Smith played a left-hand c on the clarinet and moved their right-hand fingers over the rings. An audible difference in the pitch could be discerned. Without sharing any words, the student then copied this. The following excerpt is from this portion of the lesson:

> Professor Smith: "... So think of that as having a little more presence. So, you're coming from." The teacher models excerpt to the low c.
>
> Maria: "I'm just scared of it not being in tune."
>
> Professor Smith: "Ah. Are you afraid that it's going to be sharp or flat?"
>
> Maria: "Sharp"
>
> Professor Smith: "So, shade the right hand." They model without playing. "That can really bring it down." They play to model how the right hand can impact pitch with fingers over rings getting closer to the instrument.
>
> Maria: Plays in the same way.
>
> Professor Smith: "Yeah, I mean sometimes I'm bringing down so far if I don't have a chance to pull my barrel that I'm feeling the rings under my fingers."

The teacher also addressed a concern of emphasis when performing a syncopated rhythm. This was approached by reminding the student of the kind of

emphasis needed, saying the passage in an emphasized way, and performing a demonstration. The student in this case would be expected to respond to the examples provided by the teacher and produce a similar performance to what was modeled. The teacher did not directly say to the student whether the performance was made more satisfactory in this way. Rather, the teacher emphasized the concept by gesturing and breathing in such a way that the student would be reminded of this emphasis. I would note that a difference could be heard in the student's performance with respect to the accentuation in the lesson recording.

Constructivist

1. Scales and exercises

The professor made a point to mention that they use the Albert *24 Scales and Exercises* book edited by Julie DeRoche during their interview. Professor Smith believed that students should interact with modern performers relevant to their time. During their interview, they stated: "That's been a goal over the last five six years is my students need to see themselves in the music they're playing. So we need to find from either their cultures or … they need to be playing music by women and I have seen a real excitement in the studio over exploring that repertoire."

This would include noted performer/scholars like Professor Julie DeRoche. Professor Smith expressed the following in their interview: "I prefer Julie DeRoche's edition of the Albert. So I make the point who Julie DeRoche is so that students know who the players are out in the world today, they know the great players of yesterday, and see themselves hopefully reflected in the repertoire and the players they're listening to."

In this statement, the professor expresses a desire to include a breadth of scholars, composers, and performers reflective of their students and the sociocultural intersections of the community of clarinetists in their curriculum. In this way, their students can see themselves and the incredible diversity of their field through the materials being studied.

2. Etude

The teacher assigned work for the student over the summer and suggested that Maria perform etude fourteen from the *32 Etudes for Clarinet* by C. Rose[54] with the marking of polacca.

> Professor Smith: “Okay, so maybe first lesson next fall we’ll start with fourteen.” This referred to etude fourteen from the Rose *32 Etudes for Clarinet.*
>
> Maria: “Okay.”
>
> Professor Smith: “And you have to define what that is.” They then write on the music.
>
> Maria: “Okay.”
>
> Professor Smith: “Polacca. What is a polacca?”
>
> Maria: “Okay.”
>
> Professor Smith: “That’s your homework over the summer. Look that up.”
>
> Maria: “Okay.”

[54] Cyrille Rose, *32 Etudes for Clarinet*, (New York, Carl Fischer, 1932).

Professor Smith: “Okay.”

Maria: Laughs.

Professor Smith: “And that really informs how you play this etude.”

The student was being left to define this term for themselves over the summer and understand the stylistic implications of a polacca. As the student would be left without professor input until the fall, they would be working independently and interpreting the work on their own. In this way, they would be left to construct their own relationship between the term and the resulting implications on their performance.

3. Solo

The teacher did not address the solo in a constructivist way. However, there was a notable exchange during the solo teaching where Maria reflected on her articulation. The articulation in the fourth movement of Hindemith’s *Clarinet Sonata* may present problems for students and it is therefore not surprising that the student would mention this before they play. However, the conversation moved to where the student applied articulation in other contexts and how they problem solved in novel situations. The student described a particular experience from an ensemble and how they negotiated rapid and sustained articulation passages. As the description continued, Professor Smith affirmed the student’s solution; Maria applied a meaningful example of the material being studied to their life outside of the applied lesson. The following excerpt from the recorded lesson describes this exchange:

Maria: “We (referencing fellow clarinetists in ensemble) decided to do this.”

Professor Smith: “Mhm.”

Maria: “And it’s like how we play c to a. Me and (ensemble member) and then (two other ensemble members) plays a to c.”

Professor Smith: “Yup. Yup.”

Maria: “So we just kind of...”

Professor Smith: “Alternate.”

Maria: “So I just picked a.”

Professor Smith: “Uh huh.”

Maria: “And then (ensemble member) did c.”

Professor Smith: “Cool.”

Maria: “So, I’m glad that I got a because I can double tongue a and then double tongue g.”

Professor Smith: “There you go.”

Maria: “So, it makes it a little easier for me but.”

Professor Smith: “You all sounded really good on that. Because we’ve all been focusing on articulation a lot this semester.”

Overall

As has been previously described, the bulk of the professor’s lesson was behaviorist in nature. They spent a great deal of the time responding to the stimuli of the student and helping them achieve greater degrees of accuracy. There is a clear learning

objective to be attained and therefore a specific behavior is to be demonstrated by the student in order to achieve this objective.

The lesson observation was very enlightening with respect to the instructor's behavior while teaching. However, this observation was but a moment in time in a larger educational architecture planned by Professor Smith. The interview brought to light many aspects which were not visible in the single lesson. The remainder of this chapter concerns the ideas expressed in the interviews. The following two sections (Professor as a Guide and Collaborator/Meaning Through Repertoire and Assessment) address this material.

The Professor as a Guide and Collaborator

Professor Smith presented themself as a guide with respect to how students build independence. They believed that one of the most important duties from the student in the applied lesson was their diligence in practicing. The expectation of practice is not at all uncommon and was well communicated to the student as described in their interview: "If I give you an assignment, something to practice, or things to think about in your solo piece, or in your playing you need to attend to those every time you pick up the instrument and you need to practice consistently."

The expectations around the student's practice and the relation to the teacher's collaborative intent are worth noting. Professor Smith detailed that the student should focus on the tasks that they have assigned. This was especially true in the freshman and sophomore year for most of their students. The interviewed student described a great deal of benefit from such a structure early on in their studies: "I didn't really know how to practice until second semester so I kind of just ran through it (Hindemith Sonata)

until I actually got to the lessons. She gave me pinpoint things I needed to do which included dynamically and staccato."

Maria detailed how the professor would bring errors to their attention and this direct information allowed them to integrate this feedback into their personal practice. They described that this kind of direction helped them to develop their ability to organize and better learn what effective practice can look like:

Interviewer: "You talked a little bit about change over time (with respect to practice). Maybe we could talk a little bit about how that change kind of happened."

Maria: "She (Professor Smith) definitely helped me a lot with that change... I would say I practiced, but I would just run through them (assigned repertoire). I feel like I didn't do that this time and I feel like it helped a lot."

However, the student is increasingly asked to bring the professor problems from their practice as they grow in experience. Around the junior or senior year, the professor likes to address student concerns about their playing and then work together in order to develop methods of practice to address those concerns. They stated: "We give them the tools and my goal is by the junior year they're vey self-guided. They come in and say 'I need help with this' or say 'I'm struggling with this technique' or 'I'm struggling with this articulation." In this way, the professor's philosophy seems to shift from one where they assign tasks to the student to one where the student brings problems.

The teacher's approach to repertoire is also collaborative with the students. Importantly, Professor Smith does not assign repertoire to students in a dictatorial fashion. Instead, there are two approaches that they discussed. First, Professor Smith

will ask students to bring them repertoire. They wanted students to engage with works which excite them. To help in this objective, the professor provided a resource of repertoire for students to reference in the case that they were unfamiliar with clarinet works. The students were free to explore this repertoire and bring to the teacher pieces which they are excited about studying. In their interview, they noted that: “They’ll (students) bring me pieces and they’ll say could I do this. I’ve told them all I’ve made a spreadsheet of repertoire with recoding links and if there’s a pdf available they can click on a pdf and do some listening. But I want them to know the repertoire. I want them to explore and be curious. I prefer they come in and tell me what they want to play.”

Professor Smith also provided students (especially those earlier in their collegiate studies) options of about three pieces if they do not express a preference in what to study. The teacher considered the student’s interests outside of the clarinet when suggesting repertoire. For example, Maria had a particular interest in music theory. The teacher suggested that they play Hindemith for this reason. Maria further suggested that the professor wanted them to study the Hindemith *Clarinet Sonata* because they were also studying other works by the composer in campus ensembles. The student confirmed collaborative discussions around solo repertoire. The lesson structure is usually the same from lesson to lesson. However, conversations may open up to include future repertoire to be performed (especially around the end of a semester). This kind of conversation primes a future discussion with the student about repertoire at the start of the next term.

Professor Smith heavily emphasized the collaborative nature of their studio teaching, and they made references to guiding students through their learning. An

example of this collaborative attitude was expressed with respect to their beliefs around warmups. The instructor drew a distinction in this area from how they were educated. Professor Smith described how they were given a warmup routine by their teacher. “When I came up, you did your teacher’s warmup. That’s what you did. There were no questions asked. That’s just how it was.”

Contrastingly, the professor moving from more structured instructions on warmups to an individualized warmup meant to address individual student needs. The students are given resources, including Dr. David Cook’s *Clarinet Conditioning: Warm-Ups and Perspectives*, [55] to help them create what they need. The went on to say: “So, we spend (particularly the spring semester of the freshman year) examining those warmups. My goal with it is that the students then take their own agency with what is best for them to warm up... I want them to find what gets them in the condition they need to be to play.”

Professor Smith also strove to balance the degree to which they directly involved themselves in student preparation and presentation of their work. In the lesson, they were attentive to student errors and readily offered remedies to their work. However, the instructor described other circumstances where the student was to experience the results of a given level of preparation and planning. Learning to practice and prepare were topics of concern for them. The student’s ultimate test of these preparations was the performance. They may perform unsatisfactory work. In these events, Professor Smith allowed the circumstance itself to be a teacher for the student. The experience of

[55] David Cook, *Clarinet Conditioning: Warm-Ups and Perspectives* (Tecumseh: Conway Publications).

not having a performance go the way the student wanted served as the point of reflection for how the student can demonstrate better work in the future. The student would adjust their practice and preparation to better achieve their goals in other performance opportunities. In this way, this process of attempting a performance project, observing the results of their preparation, and attempting again with adjustments to that preparation showed marks of constructivist teaching.

Professor Smith's role as a guide and mentor was further demonstrated in the lesson observed. They analogized the Mariat's participation in a campus ensemble to their role in a professional group. The more specific conversation initially focused on technique. The student was performing technical exercises and as the student performed the throat tone concert g, their left-hand fingers rose. The conversation could have simply stopped as a technical critique of the student's fingers. However, the conversation opened up to a broader discussion about the distance of fingers and pitch. Demonstrations were made to show how the distance of fingers or entire covering of tone holes can impact pitch. The process of using an efficient finger technique and even observing pitch can be described from a behaviorist perspective. However, the conversation did not stop at the desired behavior. The discussion continued to include contextualization and application to novel situations important to both participant's lives.

Maria felt the importance of preparing for their lesson and the guiding spirit offered by the professor helped them to grow. They described a high level of expectation from themselves and their performance with descriptions alluding to near perfection as the goal. While the seriousness of preparation for weekly lessons was felt by the student. They felt safe when discussing problems in their preparation. This

honest relationship between the teacher and student was one from which both benefit. Professor Smith wanted students to honestly communicate their difficulties with material and the student can enter the lesson with less fear around the interaction.

Meaning through Repertoire and Assessment

Many clarinet professors suggest listening as a part of a student's studio education. Professor Smith was similar in the way they wanted students to engage with a composer's work outside the piece being studied. The particular example provided was that of the Debussy *Rhapsodie*. They recalled student engagements where the work was performed in a way which was too stylistically similar to works by the German Romanticists. To address this, the professor suggested that the student listen to many works in the body of Debussy's work. This practice of listening outside of the assigned work to build one's own conception of a composer's style is constructivist in nature. Even if the student were assigned specific works with which to engage, their learning would shaped by their own understandings and prior knowledge. The student would leave such listening with a greater intuitive understanding of Debussy's style. A teacher may then dialogue with the student about what they heard and how they understand the composer as similar or different to others and how this new perception will impact their work.

Professor Smith described a largely constructivist structure around their studio design. Within a constructivist philosophy, students derive meaning from their work according to personal interest, exploration, and application. The participant's institution provided ample opportunities for students to address areas of interest and cross-curricular collaboration. Courses permitted student freedom in selecting repertoire for

some assignments. This allowed for a rich intersection between several parts of the curriculum.

The interviewed professor described several areas which may simultaneously interact. Two of these included: 1) A studio exam, which requires the student to prepare a piece without the applied professor – This is a standard assessment for students in the program across all applied studios. 2)A project where the student must analyze a work for a class outside of the clarinet studio – This project is in a class separate from the clarinet studio but may be taken concurrently with the studio exam described above.

A student taking these classes concurrently may deeply analyze the same work for both assignments. Professor Smith described such a scenario with one of their students. Without their prompting, the student listened to a vast number of recordings for their studio performance exam. They exercised a deep level of analysis in this listening and gathered information about style and tempo for the work. This went as far as a comparative analysis of tempi for the work across several recordings. The student independently gathered this information in preparation for both assignments.

The focus on the ability for the student to draw meaning from their work and build their own conceptions of knowledge is a mark of constructivist philosophy from the teacher. Professor Smith made great efforts to include repertoire reflective of the current time in the student's studies. They strive to be an example of performance relevant to the modern day. Through their example, students become interested in repertoire by modern composers or composers with whom they can more directly identify. The performance of repertoire takes on a more personal dimension in light of this.

Professor Smith described student choice and relevance in the senior recital. Students in the professor's studio were largely free to choose the shape of the performance of their senior recital. There was a stipulation of a single instructor approved piece of standard repertoire. However, outside of this stipulation, the student was free to craft a recital design of their own choosing. With this freedom, Professor Smith encouraged students to engage other areas of interest. Secondary instruments, singing, composition, or other skills are encouraged in their creation. The instructor wanted their students to practice crafting performances using skills germane to those needed once they are outside of the formal education environment. The student's choice and creation of relevance through the crafted of this project are both marks of constructivist education.

Chapter V – Discussion

Introduction

The goal of this research was not simply to observe how the clarinet studio can be viewed through the teaching philosophies discussed. The goal is also to engage practitioners in reflection with respect to the broader education community in order to create more robust learning environments for students. I would like to posit some potential resources with which clarinet professors may engage after considering their practice in light of what has been presented.

The applied professor interviewed reflected on their current practice by considering student difficulties in the lesson, successes experienced, and colleague collaboration around particularly challenging student difficulties. How can the lens of education theory and philosophy contribute to their studio? It is my intention that those reading the above teaching observation can identify with one or more aspects of the lesson. This chapter may then serve as a starting point for the interested reader to begin connecting with broader education research. The following will describe connections to education research more broadly.

The primary focus of this investigation is to view the postsecondary studio environment through the lens of education theory. Therefore, each section of this discussion is broken into the theories discussed earlier. A complete synopsis of the applicability of the current state of each theory to the clarinet studio is far beyond the bounds of this document. Rather, I have provided at least one applicable example for each theory and invite the reader to investigate further.

Behaviorism

The teaching episode observed revealed a great deal of emphasis on informal assessment through a student's behavior. As was discussed, these took the form of student performance and response to the performance by either the teacher or instrument. The teacher would then suggest corrective action in order to more closely or consistently attain the desired behavior. This most readily occurred with respect to the student's scales and exercises portion of the lesson.

Behavioral Objectives

Dr. Rideout connects behaviorism to the development of behavioral objectives.[56] These objectives describe the behavior desired at the completion of a lesson and some degree of success that the student would be able to exhibit. In this way, behaviors can be sequenced. However, this approach may go further than is ultimately helpful. Dr. Rideout describes the following: "In reality, schools rarely achieved the level of controlled learning implied by behavioral objectives… many completed the writing exercises but found that implementing the objectives placed a rigid and exacting format on classroom and rehearsal activities, which stymied the vitality and effervescence of musical learning."[57]

The critique presented can be valid when such an approach is used with unwavering authority. However, as stated in Chapter IV, the clarinet studio is a dynamic and unique learning environment. A collaborative spirit, like that of the professor

[56] Roger Rideout, "Psychology and Music Education Since 1950," *Music Educators Journal* 89, no. 1 (Jan., 2007): 34 https://www.jstor.org/stable/3399882.
[57] Ibid (34).

observed, may allow for behavioral objectives without the fear of a lost dynamism in the learning.

Some areas of the lesson may lend themselves well to standardization. If a studio teacher has not reflected on this aspect of their teaching, it may be worth their time to consider what observable behaviors they wish to teach their students. This may include hand position, scales and patterns, posture, external parts of the embouchure, how the student sets their stand and surrounding space for performance, and a variety of other concerns. The teacher in the applied studio may also consider what aspects of a student's performance are audible behaviors that they wish to teach. These may include pitch accuracy, rhythmic accuracy, and the relationship between physical factors and audible results (ex. pressure on the mouthpiece and pitch).

This approach often appears in scales exams. Students are often expected to perform certain behaviors (fingerings) in a certain order with some degree of accuracy. This portion of a student's studio education has generally been standardized within a given professor's pedagogy.

Rhythm is another area which may open itself to some degree of standardization. When considering rhythm, there is a clear desire for a standardized results within many pieces in the Western tradition. The standardization referenced is often focused on accuracy of performed rhythms and the keeping of a steady pulse. Dr. Shannon McDonald (Clarinet Instructor at Texas Woman's University) and Dr. Cecilia Kang (Associate Professor of Clarinet at Louisiana State University) addressed rhythmic

challenges in their article for *The Clarinet*.[58] Their research includes references to instructor frustration around the stigma of rhythmic difficulties. Their future work will focus on presenting a pedagogy guide to help sequence rhythmic studies within certain repertoire. These authors point to a desire in the postsecondary clarinet studio for increased resources and sequenced behavioral objectives may help to achieve this goal.

Cognitivism

The professor who finds themselves concerned with the cognitive domain of a student's work may consider engaging with the work of Benjamin Bloom (as described earlier in chapter two). Deep analysis of questioning processes with students may help teachers in their reflective practices. It may also benefit teachers to consider their questioning more closely. How many questions are asked? How would these questions be categorized according to Bloom's taxonomy?

Bloom is not the only researcher to engage with cognitivism and education. Clarinet professors who are particularly interested in cognitivist approaches may find benefit in the work of Dr. Robert Marzano. Dr. Marzano brings attention to three frequently used categories of engaging student thinking in his article *How Classroom Teachers Approach the Teaching of Thinking*.[59] These include questioning techniques, writing techniques, and general information processing strategies.

[58] Cecilia Kang and Shannon McDonald, "Enhancing Rhythmic Literacy in Applied Clarinet Lessons," *The Clarinet* 52, no. 2 (2025): 57-65.
[59] Robert Marzano, "How Classroom Teachers Approach the Teaching of Thinking," *Theory Into Practice* 32, no. 3 (Summer, 1993): 154-160 https://doi.org/10.1080/00405849309543591.

Clarinet professors often employ questioning techniques to enhance their understanding and engage them in deeper engagement with the work being studied. Marzano presents that teachers often struggle to identify Bloom's levels appropriately in a given context.[60] Therefore, Marzano proposes that questions can be broadly categorized into two types: recitation questions and construction questions. These categories are rather self-explanatory, but an example of each may still provide clarity and context within the clarinet studio. In the clarinet lesson, it may be prudent to have students detail previously studied information which serves as foundational to their work. Recitation questions like these could relate to the understanding of markings on a score or the fingering for a certain note. Construction questions ask students to take this a step further and make inferences or relate multiple concepts which have been previously understood. These questions are numerous, but one such question would be the decision of a certain fingering based on the dynamic of the passage being performed.

Data supports Marzano's assertion that teachers are often unaware of the questions that they ask during their work and that they engage their students in far more questions than they are aware of.[61] While clarinet faculty may not feel comfortable using Bloom's taxonomy, considering the broader categories suggested by Marzano may help in reflecting on their work.

The interviewed student reflected on the use of practice logs to help them with their preparation. They also described reflection through recordings of their lessons.

[60] Ibid, 155.
[61] Ibid, 156.

Writing is described in Marzano's work. He specifically suggests journals "as a tool for enhancing knowledge of process."[62] Studio teachers have made use of journals in the past to help students record material covered in lessons. The professor interviewed made reference to a collaborative problem-solving spirit in their studio. It may be worth investigating how journals may be used by students to reflect on questions they have concerning the content in their lessons. In this way, the student is practicing, reflecting, and able to bring ideas to the studio teacher when collaborating on concepts such as the warm-up. Marzano specifically mentions documentation about learning preferences by students in their journals. This may be beneficial to studio teachers with quite a bit of flexibility in the way that they teach. Documentation may further benefit teachers who wish to craft practice techniques or warm-ups with their students.

Constructivism

Many clarinet teachers are not only interested in student behaviors. They are also interested in how students make meaning of the instrument and performance within the context of their lives. Teachers may also be interested in furthering how students understand their place within the modern fabric of music and the clarinet. There are music programs which make such commitments quite clear in their curricula.

Project Based Learning

Dr. Wiggins connects constructivist teaching to project based learning and music education. She suggests that the constructivist approach would encourage students to "solve genuine musical problems… with the support of peers and teacher." [63] The

[62] Ibid, 156.
[63] Jackie Wiggins, "Authentic Practice and Process in Music Teacher Education," *Music Educators Journal* 93, no. 3 (Jan., 2007): 39 https://doi.org/10.2307/4101537.

clarinet studio provides ample opportunities for students to engage in this independent problem solving.

The applied clarinet lesson is an environment where students regularly see assignments from their professor where material covered is to be applied to performance examples. In this respect, the student has frequent independent projects through their etudes and solo repertoire. This work is often expanded into a recital of some length. It may be worth exploring other ways of designing projects for students to apply their knowledge

The professor participant in this study described several circumstances where the student was engaged with projects that enhanced their learning. One such project was the student exam where they were required to complete a piece for assessment without the applied professor. The professor may play a relatively limited role in this process by guiding the student toward appropriate repertoire. However, outside of this interaction, there is little assistance from the applied professor. Such assessments give students the opportunity to experience completing the study of a whole work on their own as will be the expectation once they complete school.

Similarly, it may be worth exploring a student planned and executed performance with a large degree of freedom within their program of study. The professor interviewed seems to largely take this approach with respect to programming of the final senior recital. The student is required to perform at least one significant work with the approval of the instructor. After this requirement is satisfied, it is largely up to the student to craft the program. The student is given the freedom to include compositions of their own, secondary instruments, vocal performance, and chamber music. A driving force for the

instructor interviewed was the use of career skills necessary once the student graduates. It may be worth asking what skills outside of performance and programming challenge students in their careers. Projects may help students practice these skills while still within the safety of their program of study. The following are potentially some of these challenges.

1. Audience – Students may have difficulty engaging audiences for their work.
2. Venue – Students may have difficulty finding venues for performances.
3. Repertoire – Students may struggle with the freedom to choose programs entirely of their own design for certain audiences and venues.

Other fields already do such projects, and some do so in a quite immersive way. The music education student is challenged to teach independently (to a large degree) at some point in their student teaching experience. A performer in the clarinet studio may benefit from similar experiences which approximate experiences as they near completion of their program of study.

Research Questions

Detailed descriptions of the findings have been described above. It is also prudent to provide a summary of the findings relevant to the research questions proposed in the introduction. This summary is reflective of the lesson observed and interviews conducted.

Research Question 1 – How do collegiate postsecondary clarinet professors describe their teaching philosophy?

The professor interviewed reflects on their teaching wholistically. If they found that students had particular difficulty with a concept, then they give this greater thought and may seek colleague collaboration. The professor interviewed also reflects on the interpersonal relationship with their students. They give great thought to these interactions and student feelings are important to them.

Research Question 2 – Do collegiate clarinet professors describe their teaching philosophy in a way consistent with any known teaching philosophy or theory?

The professor described their teaching philosophy in a way largely consistent with constructivist philosophy. They want a collaborative teaching environment where students feel free to bring the questions and concerns that they have. Interestingly, this seems to change over time. The teacher guides the student toward this collaborative process. They begin with more structure and then collaborate with the student toward their personalized needs and concerns over the course of the student's undergraduate education. The teacher interviewed did not present this as a rigid approach and was willing to change this from student to student.

Research Question 3 – Can any known teaching philosophies or theories be observed in the postsecondary applied clarinet studio?

The answer to this question is largely yes. As described earlier, the teaching in the applied studio is a complex and multifaceted environment. However, this teaching environment is unique and there are many ideas at play. To describe the teaching that occurred or the thoughts that the professor described in any one way would be quite inaccurate. There is a complex interplay between ideas in this context.

Future Research

This area of research is ripe for future inquiry. I would like to spend some time in this final section to suggest future research into this topic. It may also benefit the field to collaborate with colleagues in the education field more broadly. Such endeavors need not strive to create a monolithic form of practice. However, experts in the fields concerning curriculum development and reflection on teaching practices may have valuable contributions as the teaching in postsecondary clarinet studios advances.

The teaching philosophies of clarinet professors is fertile ground for further inquiry. In my reading, I had difficulty finding documentation aggregating data about the beliefs of clarinet professors broadly concerning their teaching practice. Professors of clarinet in the United States are a broad and varied group with many different focuses and specialties. Even given these differences, I do not think it an overstatement to say that each of them wants the best for their students. It would be worth investigating what the field can agree on as being important to teach their students. Finer points on these areas can then be investigated further for variance. From this point, the field may move to investigate how those skills are taught and what teaching theories are present in this process. Such an investigation may take significant effort and time but may result in more unified ideas as curriculum continues to develop.

If important findings can be made concerning alignment of curricular objectives among professors, it may then be possible to identify which curricular objectives are behavioral. To teach a clarinetist is to train an artist and there will be differences among teachers in concepts concerning desirable tone and appropriate interpretations among other artistic facets of performance. It has been demonstrated by

practitioner/researchers that there are areas of desired curricular resources. Chief among these are ideas concerning rhythmic literacy in the Western tradition. A daunting, but perhaps necessary, task may be to ask what rhythmic skills students need to learn at the postsecondary level. Similar tasks have been surmounted by the community of general music educators. There are processes of introducing rhythm to young students in use educators trained in methodologies by researchers like Kodaly.

Conclusion

I approached with an appreciation of recognized education theories and philosophies. I had used these ideas to enhance my own practice and wanted to search resources in the community of clarinet educators. However, I found that this area had not yet been explored with respect to the lens presented. I hope that, through work of this kind, the community of postsecondary clarinetists can further a dialogue with those who study education more broadly in order to better understand the complex engagement between clarinet studio professors and the aspiring professionals that they teach.

As I was reviewing literature, I was unable to find many resources that describe the observed behaviors of actual postsecondary clarinet lessons. I will remain grateful to both the student and professor participant in this work for opening their interactions to my observations. I would hope that future professors and students will be willing to allow similar observations. A robust record of formally observed clarinet teaching can serve as a grounding from which others can build.

On the foundations of such observations, I would also like this document to spark more collaboration from the community of education researchers. It is my belief that the clarinet studio can serve as an interesting ground for inquiry from this community. In the same way that the community of clarinet professors may benefit from the research of academic educational theorists, the researchers themselves may be able to find emergent qualities in the clarinet studio that we may not be able to discern without them. In this way, both fields may symbiotically advance.

Appendix I: Student Interview Protocol

Note Environment

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GENERAL LESSON QUESTIONS

1. Please describe your experiences in the applied studio.
2. How does your teacher interact with you in the applied studio?
3. What does your applied professor expect from you as you prepare for a lesson?

a. Has your preparation changed over time?

b. If Yes - What role has your teacher played in this change?

4. What does your applied professor expect from you during a lesson?
5. How do your goals impact your lessons if at all?
6. How do you reflect on your lesson performance?

OBSERVED LESSON QUESTIONS

1. I viewed the lesson submitted. Is there anything that you would like to share about the interaction that I was unable to see?
2. I observed scales from the Albert book, Jeanjean Vade Mecum, a Rose 32 etude, and a little bit of Hindemith. Can you tell me more about that structure?

a. Are most lessons typically structured in this way?

3. You performed from the Albert book, Jeanjean Vade Mecum, a Rose 32 etude, and a little bit of Hindemith in the lesson video submitted. How did you prepare this repertoire?

a. How did you learn to prepare in this way?

4. In your lesson, you addressed rhythm and subdivision with your applied professor. How do you and your professor address areas of improvement?

Appendix II: Professor Interview Protocol

Note Environment

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_____
_____
_____

TEACHING PHILOSOPHY QUESTIONS

1. Please describe your teaching philosophy.
    a. What do you think influenced this philosophy?
2. What are the duties of the teacher in the applied lesson?
    a. Does this change from student to student?
3. What are the duties of the student as they prepare for an applied lesson?
    a. Does this change from student to student?
4. What are the duties of the student during the applied lesson?
    a. Does this change from student to student?
5. How do you prepare to teach an applied lesson?
    a. Has this changed over time?
6. How do student goals or degree programs impact how you teach the applied lesson if at all?
7. How do you currently reflect on your teaching?

OBSERVED LESSON QUESTIONS

8. I viewed the lessons submitted. Is there anything that you would like to share about the interaction that I was unable to see?
    a. If the participant has difficulty: This could relate to your internal thoughts and monologue as the lesson progressed.
9. Your student performed from the Albert book, Jeanjean Vade Mecum, a Rose 32 etude, and a little bit of Hindemith in the lesson video submitted. How did you come to choose this repertoire?
    a. What role do your students have in choosing repertoire?
10. I observed what you described in email as a pretty standard lesson format. Can you tell me more about that?
    a. Is this typical between all of the lessons that you teach?

11. In the lesson, I saw you addressing rhythm and subdivision with the student. Is this area of learning?

    a. Do you use the same approach with all of your students?

Questions after observed lesson if time.

1. In the lesson, I heard you use pluralistic pronouns with your student. Can you tell me more about that?
2. Your student expressed some thoughts about not liking an etude. Can you tell me more about how you consider student choice in lessons?

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