

“IT GOES LIKE THIS:”
PEER INTERACTION AND DEVELOPMENT OF LEARNER AGENCY IN
STUDENT-LED INSTRUMENTAL CHAMBER ENSEMBLES

by

KEVIN RANDALL CZARNIK

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Oakland University
Rochester, Michigan

Doctoral Advisory Committee:

Gregory Cunningham, Ed.D., Chair
Deborah J. VanderLinde, Ph.D., Co-Chair
Lauri Hogle, Ph.D.
Elizabeth Kattner, Ph.D.

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To my students who played so sweetly for me.

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Kevin Randall Czarnik

ABSTRACT

“IT GOES LIKE THIS:” PEER INTERACTION AND DEVELOPMENT OF LEARNER AGENCY IN STUDENT-LED INSTRUMENTAL CHAMBER ENSEMBLES

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Chair: Gregory Cunningham, Ed.D.

Co-Chair: Deborah VanderLinde, Ph.D.

Student-led instrumental chamber music ensembles can provide rich opportunities for learners to share and enrich knowledge using scaffolding (Wood, Bruner, & Ross, 1976) methods that are authentic to themselves. As learners interact in their groups over time, they may create their own shared repertoire of knowledge (Rogoff, 1990; Trevarthen, 1980) which could deepen their communal bonds into a functional community of practice (Wenger, 1998). This could further enrich the conceptual understanding of the members and support the development of learner agency.

In this study, I sought to explore the nature of student interaction in peer-led instrumental chamber music ensembles and how those interactions change over time. Qualitative methodology was used with myself acting as teacher-researcher (Kincheloe, 2002). Study groups and video recordings of verbal, physical, and musical interactions provided the data which was transcribed and analyzed for themes related to the social interactions of the ensemble. I discovered that as the ensemble members developed trust for one another, it allowed them to enter their individual Zones of Proximal Development

(Vygotsky, 1978) to develop their group intersubjectivity (Rogoff, 1990; Trevarthen, 1980) which aided them as they learned their music together. As time progressed, students who were shy in the learning environment developed greater agency and participated at a greater level than before. Several instances of peer interaction also led me to propose that there may be a *shared* Zone of Proximal Development where multiple learners can interact together in ways that are authentic to their own learning styles that could aid in increasing the intersubjectivity of the full ensemble and promote the development of learner agency.

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CHAPTER ONE
MUSIC LEARNING IN A STUDENT-LED SMALL ENSEMBLE: THE FORMATION
OF A COMMUNITY OF PRACTICE

On a cold March, morning the students of my high school band class gathered in pods around our rehearsal room to present a “run-through” performance of their chamber music projects before our annual chamber music concert. There were many proficient performances—every group performed the correct notes and rhythms at the correct times but there were several groups that stood out from the rest because of their exceptional musicality. They not only performed the requisite notes and rhythms for their pieces, but added in many nuances, such as thoughtful dynamics and rubati that aided in creating a compelling performance. What struck me most was that these extramusical ideas were totally student-created—I had no hand in the rehearsing of their chamber music ensemble. After several years of observing these spectacular performances, I embarked on a journey to observe how these groups interacted together to create these fantastic musical moments.

*

As a teacher, I have witnessed many student chamber music groups that go above and beyond during their rehearsal time to create unique and compelling musical performances. Before this, as a middle and high school band student, I participated in small musical ensembles (known as chamber music ensembles) for solo and ensemble festivals and also created a standalone brass ensemble that played at local events, but I do not remember any of those groups making musical decisions that went past what was on the printed page of the score. During my undergraduate studies I also participated in

chamber music ensembles, but these were often coached by university professors and I typically had no say in the rehearsal process. I have always been curious about what inspires my student musicians to create such compelling performances.

I have been formally trained as a music educator through a university teaching program and have refined my own skills through experiences in the field. Over the years, I have developed teaching practices that have helped me effectively communicate my curriculum goals to my students. I had not considered the potential power of student-to-student interaction until my sixth year of teaching when I noticed the successes of many of my student chamber music ensembles. I shared my initial observations of these successes with my graduate cohort, who helped shape the development of my initial goals for a study of the students in my band program.

As a teacher, I wanted to learn what enabled them to make such significant progress in the rehearsal room and observe how they naturally interacted with one another. I decided to enter my classroom as a teacher-researcher (Kincheloe, 2012) to observe, document, and describe the nature of how students develop, refine, and share their musical understandings. I initiated a qualitative research study with the goal of observing how my students interact with one another as they learned their chamber music and use the findings to inform my teaching and possibly the teaching of others.

Study participants attended the high school where I was employed and signed an agreement in accordance with the Oakland University Institutional Review Board. This stated that they understood their privacy as minors would be maintained and that pseudonyms would be used for all individuals whose interactions would be described in any report of the study.

Data collection began with the video recording of student participant groups in their rehearsal setting. The discussions that ensued among these participants were later transcribed and I also kept a journal of field notes that included my personal perceptions and reactions to what was occurring in these group rehearsals. Unless I was explicitly asked for help with their rehearsal, the participants of my study worked independently from me to rehearse their music and create a performance with which they were pleased. One particularly active group of participants was selected as my key informants for the study, as their verbal, physical, and musical interactions provided a wealth of observable interactions. The study ran for two sessions, one in the fall and one in the winter, each about eight weeks long.

Learning Together

Learning is socially catalyzed (Brooks & Brooks, 1999; Vygotsky, 1978). It occurs everywhere that people interact with one another. Thus, learning is also socially mediated; the knowledge we share is developed and refined through social interaction and transformation of concepts in a way that is agreed upon by members of a group or society. These agreed-upon shared understandings are referred to as “intersubjectivity” (Rogoff, 1990; Trevarthen, 1980), which will be discussed in this paper.

As I observed the videos of my student participants, I noticed the apparent sharing of knowledge (and the development of their group shared intersubjectivity) through talking, instrument playing, and movement. As the participants developed trust for one another, these interactions became more genuine, illustrating their burgeoning commitment to each other. As time progressed, they also became more willing to take musical risks individually and together.

In my study I observed that the groups that had the most successful performances at the end of the rehearsal cycles were the ones that broke the traditional rehearsal hierarchy and allowed every member to have a voice in rehearsing the group and suggesting changes. Some groups had students who were very good at teaching and reviewing rhythms and a separate person who would offer commentary on musical style and phrasing. In a few instances, students who were traditionally shy or disengaged in my band classes gained the agency (Dewey, 1916/2016; Wiggins, 2015) to contribute rehearsal ideas to the group. Often, the students would agree to try out an idea and then debate whether it was a good fit for their group after experimenting with it.

It quickly became evident to me that these students were epitomizing tenets of social constructivist learning: they met each other's needs at a level that was appropriate, they learned via social means, and their willingness to experiment with new ideas helped to build student agency (Bandura, 2006; Noteboom, 2003; Wiggins, 2015). Their increased willingness to work together and share skills for the betterment of the group also demonstrated to me that they were forming their own musical community of practice (Kenny, 2016; Lave & Wenger, 1991; Wenger, 1998; Wenger, McDermott, & Snyder, 2002). Through the spontaneous development of a community of practice, the students were able to create a functioning work environment that allowed them to safely develop their group intersubjectivity (Rogoff, 1990; Trevarthen, 1980) and engage in deep learning.

The Need for the Study

Though several studies have investigated music students working in groups (Blair, 2009b; Davis, 2008; Grekin, 2002; Kenny, 2016; Kondo, 2019; Wiggins 1995),

they involve learning groups where a teacher figure is involved in the learning process. Unless specifically asked, I did not engage with my students during the data collection portion of this study; all of the learning and musical products that were created during the data collection period were entirely student-catalyzed. The ways the students interacted demonstrated the development and refinement of a community of practice and their modes of knowledge sharing, though appropriate for the learning levels of the group, were spontaneous and unplanned.

As I gathered my data, this study illustrated to me that every student can communicate their understanding of music with one another, provided that they are in a trusting and supportive environment. In the data analysis and findings chapter of this paper, I will discuss this phenomenon fully.

Study Questions

The study was emergent in nature (Lincoln & Guba, 1985), initially guided by these overarching questions:

- How do students function as teachers and learners without interaction with their formal classroom teacher?
- How do students share and scaffold their knowledge and skills?
- Do students develop roles within their learning communities, and can they shift over time?

Sharing and refining knowledge in any group could help develop a rich understanding of the content at hand. In this study, I observed that trust and perceived care for their group's success seemed to affect their quality of knowledge sharing. From this, their

individual agency (Bandura, 2006; Noteboom, 2003; Wiggins, 2015) was also positively or negatively affected.

As the study progressed, I also sought to understand how students develop their shared intersubjectivity (Rogoff, 1990, Trevarthen, 1980), interact within the Zone of Proximal Development (Vygotsky, 1978), and form the bonds of a community of practice (Lave & Wenger, 1991; Wenger, 1998; Wenger, McDermott, & Snyder, 2002). The interactions of my study participants also led me to posit that there may be a shared component to the Zone of Proximal Development that is dependent on trust and the development of intersubjective knowledge in a community of practice. This will be discussed in the final two chapters.

This study informed my understanding of how students in instrumental chamber ensembles learn from one another; it is my hope that the findings will resonate with teachers who have had similar experiences, furthering the field of music education and our understanding of cooperative learning in the education field.

In Chapter Two, I discuss the literature pertinent to constructivist learning and the development of learner agency. In Chapter Three, I discuss the research methodology and design of the study. In Chapter Four, I discuss the data that was collected. In the fifth chapter, I will discuss my study findings and implications of the study for the educational community.

CHAPTER TWO

SOCIAL CONSTRUCTIVISM: LEARNING THROUGH INTERACTION

The purpose of this study was to observe and document how students interact with one another while working in small musical groups without the assistance of a formal “teacher.” In this chapter, I will examine literature that supports my understanding that learning occurs amongst peers in a social setting, particularly as it pertains to the unique social learning setting of this research study. I will begin with an overview of constructivist learning theory before discussing key constructs that relate to the theory and my research, such as intersubjectivity, the Zone of Proximal Development, and learning in communities of practice.

Overview: Constructivist Learning Theory

Constructivist learning theorists propose that humans learn through interaction together in social settings (Bruner, 1966; Costantino, 2008; Phillips, 2000; Vygotsky, 1978; Wiggins, 2015). Boardman (2002) explains that “humans do not find or discover knowledge but rather construct or make it” (p. 3). Brooks and Brooks (1999) comment further that knowledge development is situated in our unique learning location: “we construct our own understandings of the world in which we live” (p. 4). Fosnot (2005) concurs, adding “meaning-making [occurs] in cultural and social communities of discourse” (p. ix). Thus, the development of knowledge is emergent, not fixed, and is dependent on the social discourse occurring around a community of learners. This resonates with Stublely (1992), who adds that knowledge development is the “result of an ongoing, interactive process of acting and being acted upon” (p. 4).

Building Conceptual Understanding Through Experiences

Learners develop their understanding of a concept through direct engagement with a challenge or learning task (Bamberger, 1991; Bruner, 1960/1977; Wiggins, 2015). Constructivist teachers understand that each learner enters a learning situation at a different level with a different perspective that has developed through their own prior experiences in the world (Bruner, 1977, 1990; Wiggins, 2015). Thus, learning experiences must be constructed for learners with a wide range of levels to offer multiple points of entry for the student to engage with the content (Wiggins, 2015). Over time, these experiential lessons help learners develop agency, or the belief that they can engage in and alter their life circumstances (Bandura, 2006). As learners apply and transform their knowledge to meet the demands of new challenges, they may enter their Zone of Proximal Development, a theoretical space in which a more knowledgeable learner(s) can support a student to increase their understanding of a concept. This will be discussed more fully in the Zone of Proximal Development section.

As we learn, we create mental connections, or schemata, that connect our understanding of a concept to new or related content (Anderson & Pearson, 1984). This resonates with Wiggins (2015), who notes that individuals make meanings of experience by making connections to understandings they already hold.

In a different manner, teachers and peers may deepen a learner's schematic connections through scaffolding, or the creation of targeted supports for someone working on a learning challenge. Scaffolding leads that person from dependence on another to complete the challenge to independence, through the development of novel problems (Wood, Bruner, & Ross, 1976; Wiggins, 2015). With knowledge scaffolding,

learners may be able to deepen their understanding of a concept and work through increasingly more difficult learning challenges. These understandings could be further deepened via interaction with other learners (Bruner, 1966; Dewey, 1916; Vygotsky, 1978). I will discuss scaffolding and social interaction more fully later in this chapter.

Learning Together Develops Understanding

As stated earlier, learning is a social event between parties who share their experiences and ideas with each other to develop their understandings (Vygotsky, 1978; Wiggins, 2015). Dewey (1916/2018) writes,

[Every] individual has grown up, and always must grow up, in a social medium. His responses grow intelligent, or gain meaning, simply because he lives and acts in a medium of accepted meanings and values. Through social intercourse, through sharing and in the activities embodying beliefs, he gradually acquires a mind of his own. (p. 313)

Vygotsky (1978) further posits that the development of memory and the formation of concepts are the result of “relationships between individuals” (p. 57). Trevarthen (2011) concurs, saying “the art of sympathetic and creative two-way communication is essential for ‘intent participation learning’ at every stage of teaching, from kindergarten to university” (pp. 175-176). This resonates with Dewey (1916/2018), who noted:

The conception of mind as a purely isolated possession of the self is at the very antipodes of the truth. The self *achieves* mind in the degree in which knowledge of things is incarnate in the life about him; the self is not a separate mind building up knowledge anew on its account. (p. 313)

Contemporary research by Mercer and Littleton (2007) builds upon the notion of the social nature of learning, positing that “people do not only interact, they ‘interthink,’ combining their intellects [sic] in creative ways that may achieve more than the sum of the parts” (p. 4). Thus, while developing and negotiating their shared knowledge through

learning challenges, students are also developing and reinforcing their own individual schematic understanding of the concepts they are studying. This shared knowledge developed in peer groups is referred to as intersubjective knowledge (Rogoff, 1990; Trevarthen, 1980).

Intersubjectivity

Sharing knowledge among learners leads to the development of a mutual understanding of concepts among a group of people (Wiggins, 2004). As students discuss and develop their group's understanding of a concept, thoughts become woven together into a cohesive, intersubjective understanding (Rogoff, 1990). Rogoff notes:

Intersubjectivity provides the grounds for communication and at the same time supports the extension of children's understanding to new information and activities, as communication of an experience or idea requires relating it to a known class of phenomena, thereby generalizing the phenomenon in order to communicate it. (p. 72)

Social Interactions Lead to the Development of Intersubjective Knowledge

Trevarthen (1980) posits that knowledge is a direct result of social interactions between people. He defines intersubjectivity as "both recognition and control of cooperative intentions and joint patterns of awareness" (Trevarthen, 1980, p. 530). As people interact, they negotiate their understanding of a concept into something that is accepted by both parties. This begins during infancy:

It is generally believed that interaction with people permits a baby to learn rules for sharing, teaches them how to use objects and eventually transmits a language code to them. The infant's development is supposed to depend on the mother teaching reciprocity in dialogue, how objects may be used, what effects they may create and how to speak about them. Knowledge of the infant about people as well as about objects is said to be developed by socialization which depends increasingly on transmission of the acquired knowledge, techniques and social

conventions of persons close to the infant. The process of acculturation is continued in childhood by formal schooling. (Trevarthen & Hubley, 1978, p. 219)

These ideas support the claim that learning is socially constructed. Intersubjective understanding occurs all throughout the social world, often without us knowing.

Hundeide (1993) expounds on this idea, noting that achievement of intersubjective knowledge is the basis for how the world interacts:

Intersubjectivity is therefore not only a special momentary achievement between two persons, adjusting to each others [sic] perspectives, the social world as such is at the outset intersubjective and the momentary acts of negotiated intersubjectivity presuppose, at least to some extent, the mastery of these pregiven collective forms of social knowledge and communication, from vocabulary to interactive practices, registers, genres, situational frames of interpretation and action, metaphores [sic], domains of meaning, and typical cultural narratives. All these tools are there invisibly with us (Smedslund, 1990)¹, appropriated through our socialization, and when we interact with other persons we take them for granted, they constitute our interpretive background. (p. 440)

Lave and Wenger (1991) comment similarly:

Learning, thinking and knowing are relations among people in activity in, with, and arising from the socially and culturally structured world. This world is socially constructed; objective forms and systems of activity, on one hand, and agents' subjective and intersubjective understandings of them, on the other, mutually constitute both the world and its experienced forms. (p. 51)

Thus, person-to-person interaction is dependent upon a mature, shared intersubjective knowledge of the lifeworld they interact within. These could be large communities, like a city, or small communities such as a classroom, or a group of students within a classroom, such as the chamber music ensemble culled from the membership of a school band. Members of these communities develop their

¹ The date of this quote was incorrectly cited by Hundeide. The article should be (Smedslund, 1984). Proper citation in the Reference section.

intersubjective understandings via scaffolding from a more knowledgeable person, much like this example of a mother helping her child:

[She] scaffolds the child's efforts at solving some every day task or chore, filling in, modelling and keeping the goal present so that the child is able to perform better than he would have been able to do so with his own powers. This is when the child and the caregiver are operating in Vygotsky's 'Zone of Proximal Development.' (Hundeide, 1993, pp. 441-442)

Development of intersubjective knowledge requires members to silently agree to standards of interaction, much like a contract (Bruner, 1990; Hundeide, 1993). Through sharing experiences and knowledge, a group develops ways of interacting that "feels right" for them (Hundeide, 1993, p. 446), a type of tacit knowledge (Polanyi, 1966) that deepens the bonds between members, further strengthening their shared intersubjectivity into what some refer to as a community of practice (Lave & Wenger, 1991). Before a community of practice is formed, learners must connect on a social level to develop their shared interest, build understanding, and develop trust. This begins with entering into a collaborative learning space known as the Zone of Proximal Development.

The Zone of Proximal Development and Scaffolding

According to Vygotsky, the Zone of Proximal Development is the "distance between the [learner's] actual developmental level as determined by independent problem solving and the level of potential development as determined through problem-solving under adult guidance, or in collaboration with more capable peers" (Vygotsky, 1978, p. 86). Contemporary scholars have expanded the original notions of the "more capable peer" to guides of various ages learning in both directions with assistance from helpers of all ages (Barrett, 2005; Wenger, 1998). Rogoff (1990) defines this as "guided participation" (p. 191); Trevarthen refers to it as collaborative learning (Smidt, 2018).

These actions help to build an intersubjective understanding between peers (Rogoff, 1990).

Thus, peers of the same or dissimilar ages can interact in the Zone of Proximal Development (Barrett, 2005). Wenger (1998) concurs, noting that learning can be multi-directional (participant to participant) rather than unidirectional (teacher to student). In any situation, a more knowledgeable other must be able to interact with the learner in a way that resonates with their learning style, allowing growth to occur within the Zone of Proximal Development.

While in the Zone of Proximal Development, a learner could achieve a greater understanding of what they were studying and be better able to transform and apply that knowledge to new tasks (van Oers, 2020). The final result of working and learning in the Zone of Proximal Development is the development of an adult-like system of reasoning for a particular concept(s) (Fosnot, 2005). Kozulin (1986) expounds:

[The Zone of Proximal Development is] the place at which a child's empirically rich but disorganized spontaneous concepts 'meet' the systematicity and logic of adult reasoning. As a result of such 'meeting,' the weaknesses of spontaneous reasoning are compensated by the strengths of scientific logic. The depth of the *zo-ped* [Zone of Proximal Development] varies, reflecting children's relative abilities to appropriate adult structures. The final product of this child-adult cooperation is a solution, which being internalized, becomes an integral part of the child's own reasoning. (Kozulin, 1986, p. xxxv)

The assistance of a more knowledgeable person could provide the necessary guidance for a learner to develop their schematic understanding of a concept, provided they both share similar cultural understandings of how to learn and share knowledge.

Participation in Learning is Culturally Mediated

Vygotsky posited that learning is affected by the nature of a person's participation in their local culture (Boardman, 2001). Culture "provides the tools for organizing and understanding our worlds in communicable ways" (Bruner, 1996, p. 3). A culture provides a forum for individuals to learn, react to one another, and share views. Rogoff (2003) expounds, noting, "People develop as participants of cultural communities. Their development can be understood only in the light of the cultural practices and circumstances of their communities—which also change" (pp. 3-4). How a culture approaches teaching and participation in learning experiences will directly affect how a learner learns material (Barrett, 2005; Schirato & Yell, 2000). Bruner (1996) relates this to the developing of a "toolkit" of skills and understandings that can help one be successful in their culture (p. x). Thus, our understanding of the world is mediated through intersubjective sharing within our cultures (Boardman, 2001). How well or the level to which an individual completes a task is dependent on the cultural meaning that is given to those tasks and how a local institution or group values the task (Rogoff, 2003).

Learning Occurs at Developmentally Appropriate Levels

Building on Piaget's claim that learning is based on developmental learning levels (Piaget, 1963), Vygotsky (2017) posited that learning occurs at different stages in a person's life, and teachers should be mindful not to engage students in learning scenarios for which they are not developmentally ready:

Development has to complete its distinct, finite cycles, specific functions have to mature before the school can begin teaching the child particular subjects and skills. Cycles of development always precede cycles of teaching. Teaching is always tied to the tail of development, development always strides ahead of teaching. Any possibility of discussing what role teaching might have in the development and maturing of these functions and in their activation is thereby excluded in advance. Their development and maturing is taken rather as a premise

than as a result of teaching. Teaching is built upon development, changing nothing essential in it. (p. 360)

Vygotsky differed from Piaget with his notion of how a person learns; for Vygotsky, learning was social, an event done with the assistance of others (Kozulin, 1986; van Oers, 2020; Vygotsky, 1978,). Piaget posited that learning occurs on an individual basis without help from others. He suggested that organisms learn and develop mental structures (schema) to adapt to the demands of their environment (Piaget, 1963). He viewed learning as a method of maintaining equilibrium in a system via adaptation to changes in an environment (von Glaserfeld, 2005). In Vygotsky's sense, social learning does involve entering stages of disequilibrium in order to advance understanding to the next level; however, it is social interaction, not self-guided trials, that can bring learners to an equilibrium of understanding within their community through work in the Zone of Proximal Development. If a person's current skills meet the demands of the learning challenge (thus achieving an equilibrium state), they may experience a moment of flow.

Flow and the Zone of Actual Development

Flow is achieved when a person's skill level meets the level of challenge for the tasks they are required to complete (Csikszentmihalyi, 1990/2008; Elliott, 1995). In my personal experiences, I have observed that music students who are experiencing flow while rehearsing and performing seem to have lost track of time, felt as though their performing was effortless, and felt a sense of calm even while performing their most technical sections. Csikszentmihalyi (1990/2008) notes that a moment of flow is not an endpoint in the search for satisfaction, but one point of many in life's journey:

The purpose of the flow is to keep on flowing, not looking for a peak or utopia but staying in the flow. It is not a moving up but a continuous flowing; you move up to keep the flow going. (p. 54)

Elliott and Silverman (2015) comment similarly, noting that experiences of flow in music making inspires students to seek similar situations for growth:

Music making is valuable and significant in itself because it propels the self to higher levels of complexity. As a student's level of musicianship progresses upward in complexity to meet the demands of ever more challenging works, all aspects of consciousness are propelled upward. (p. 308)

In terms of learner development, students of various ability levels access flow when they are operating within a “zone of actual development,” where they can perform tasks without assistance (Vygotsky, 1978, p. 86). In a musical community of practice² such as my student chamber music ensembles, this would occur when all of the musicians are able to read a piece of music of similar levels and perform their music together, without stopping for help.

Flow Versus the Zone of Actual Development

The concept of flow does not coincide fully with Vygotsky's zone of actual development. Csikszentmihalyi noted that once flow is achieved, a person will continue to find similar situations that can allow them to continue the feeling of flow. This implies a stagnation or decline in agency once a source of flow is found. Vygotsky's zone of actual development is a constantly changing target; once a student is functioning in this zone, they may quickly become bored or disinterested in completing tasks of similar challenge. By offering learners new, more difficult tasks that will nudge them into an expanded Zone of Proximal Development, teachers might foster additional growth.

² Communities of practice will be discussed later in this chapter.

Risk Taking: Agency and *Perezhivanie*

Entering the zones of proximal and actual development takes a significant amount of risk taking for a learner. For many, it could create a vulnerable situation; they are accepting the help of another person to further their knowledge, which may make that person feel as though they are unintelligent or weak to their peers. Rogoff (1990) expounds:

Learning requires risk taking, since learning involves functioning at the edge of one's competence on the border of incompetence: If the teacher is not trustworthy, the student cannot count on effective assistance from the teacher; there is a high risk of being revealed (to self and others) as incompetent. (p. 202)

A learner must have a willingness to engage in experiences that are outside of their comfort level and harbor feelings of confidence, security, and trust in their teacher and their self (Blair, 2009b).

Perezhivanie

One of Vygotsky's final theories was that of *perezhivanie*, which proposed that there is a relative relationship between a child and their environment (Vygotsky, 1971). Vygotsky conceived *perezhivanie* as a part of the learner's psychology (Cong-Lem, 2022). Their *perezhivanie* adjusts with changes in the environment: "the essential factors which explain the influence of environment on the psychological development of children, and on the development of their conscious personalities, *are made up of their perezhivaniya* [sic]" (Vygotsky, 1994, p. 339).

How a child interprets challenges is affected by their *perezhivanie* (Cong-Lem, 2002). This relationship affects how the child perceives, processes, and experiences emotional interaction in all situations, including the Zone of Proximal Development.

(Mahn & John-Steiner, 2002; Vygotsky, 1971). Positive or traumatic incidents could affect each person differently, which could cause a learner to react differently than another in potentially stressful events, such as entering the Zone of Proximal Development: “different events elicit different perezhivaniya [sic] in the child” (Vygotsky, 1994, p. 343). Thus, a learner may be more aware of their vulnerability at certain moments because of how their perezhivanie has developed over time, which could affect their willingness to enter risk-taking situations. Blair (2009b) comments, “without a desire to learn or capacity and willingness to take risks, students may hesitate to venture into the ZPD. The teacher cannot do this for them; the impetus must be present in the student” (p. 181). That impetus comes in the formation of agency, which develops through successes in task completion.

Agency

As a person develops their knowledge, experiences successes in learning challenges, or achieves a flow state, their agency, or confidence to engage in new, more challenging tasks may also increase (Bandura, 2006; Wiggins, 2015). In the music classroom, musical agency is the sense a student has in regard to initiating and carrying out their own musical ideas and ideas about music (Wiggins, 2015). Positive peer engagement in lessons can also contribute to the development of self-efficacy, or one's belief in one's own effectiveness in completing a task (Bandura, 1977). This can create opportunities for the students to have a “say” in what content they are learning or how they are learning (Davis, 2011).

The greater a learner's agency becomes, the more likely they are to take risks while exploring their learning content, which will deepen their understanding of the

concept (Wiggins, 2015). In the music classroom, a “musical say” includes opportunities for students to contribute in general music or ensemble settings and develop their musical voice through ownership, agency, relevance, and personal expression in the learning process (Davis, 2011). As learners develop their voice in any content area, they may become more open to share their knowledge with each other, which could lead to the development of intersubjective knowledge and the development of a community of practice.

Communities of Practice

Communities of practice form as groups of people interact together to develop a solution for a common goal or problem (Kenny, 2014; Lave & Wenger, 1991; Wenger, 1998; Wenger-Trayner & Wenger-Trayner, 2015). Wenger, McDermott, & Snyder define a community of practice as “groups of people who share a concern, a set of problems, or a passion about a topic, and who deepen their knowledge and expertise in this area by interacting on an ongoing basis” (2002, p. 4). In these situations, practice is considered both a verb and noun: it is the act of carrying out a task, and the application of something that has been the usual way of doing something (Merriam-Webster, n.d.).

Practice

Wenger (1998) describes practice as “a level of social structure that reflects shared learning” (p. 126). Wenger, McDermott, & Snyder (2002) further define practice as “socially defined ways of doing things in a specific domain” (p. 38). Elliott (1995) refers to practice in music as the act of making music, where “musical action and musical context work together to co-produce musical understanding” (p. 61). Participants in a

practice are continuously negotiating meaning, individually and together, as they engage with the content of the practice (Barrett, 2005).

Developing a Community of Practice

A community of practice occurs when members are mutually engaged in a situation, participate in a joint enterprise, and develop a shared repertoire of skills (Lave & Wenger, 1991; Wenger, 1998; Wenger, McDermott, & Snyder, 2002). Interaction among members of the community of practice is key to its success. Davies (2005) notes that “the core of the community of practice concept resides in the importance of doing” (p. 560). Kenny (2014) further identifies musical groups that are mutually engaged in a situation as a Musical Community of Practice.

Communities of practice develop over time, with each person assuming a role for its success. As a person feels valued within their community, their sense of agency within the group is likely to increase, and their willingness to take on more ownership may also increase (Wenger-Trayner & Wenger-Trayner, 2015). These are social groups; they require interaction and mutual engagement among members to function and produce solutions for the situations they encounter. Wenger (1998) further develops his theory by noting that the members of a community of practice must “interact intensely with everyone or know each other very well,” strive for accountability of their actions to best benefit the enterprise of the group, and develop or adapt a repertoire of skills that specifically assists with their group enterprise (p. 126). This resonates with Kenny (2014), who posits that the members of the community mutually construct their meaning and acquire habits, or ways of operating or as Wenger (1998) refers to it, “locally negotiated regime of competence” (p. 137).

Communities of practice are situated in the setting from which they develop (Blair, 2009b; Boardman, 2002; Koopman, 2007; Lave & Wenger, 1991). They are the direct result of the interactions between the different lifeworlds of their members, which are shaped by their local cultures (Bruner, 1996; Davies, 2005). The development of a shared understanding and agreed-upon modes of interaction creates a collaborative learning environment, which Kenny (2014) refers to as a “musical world” (p. 397). The members of these communities work to support the success of their own learning and also that of their peers (Wiggins, 2015). Lave and Wenger note that members of a community of practice experience fluidity in their roles within the group; they may participate legitimately as peripheral participants (interacting when they feel comfortable doing so) (Lave & Wenger, 1991), as someone with a limited *knowledgeability* of the content at hand (a limited competence of the content with limited ability to transfer it to new scenarios) (Omidvar & Kislov, 2013), or as experts who could fully interact within their group (Lave & Wenger, 1991).

In Closing

The ideas discussed in this chapter represent theories regarding how we learn as humans and interact in communities. The participants of my study seemed to embody the tenets of constructivist learning through their engagement in small musical ensemble communities of practice. In the next chapter, I will discuss the methodology used in my study, including the genesis of my guiding questions and the process I used to collect and interpret data.

CHAPTER THREE: QUALITATIVE METHODOLOGY

One of my goals when entering a doctoral program in music education was to learn strategies to bridge the gap between learning theories and my own practice. I have always been interested in learning about how others learn. As a music teacher, I have observed students use many different methods to help them reach their musical performance goals. Like many other teachers, I try to stay abreast of the most current teaching trends in my field and have incorporated new teaching practices into my skillset that best meet the needs of my learners.

I hoped to learn about how my students interacted with one another to learn music in a way that is authentic to them as I embarked on my study. I understood that a qualitative research study would allow me to observe the natural interactions of my students in the most unobtrusive way possible (Lincoln & Guba, 1985). In this chapter, I will discuss qualitative research and research methodologies I used to design my study, collect data, analyze the data, and support the credibility of findings.

A Local Learning Phenomena

My work as a high school music educator has allowed me to witness students sharing their knowledge with others to help their class succeed. Their willingness to give and receive knowledge as peers became amplified during the times that I would break the class into smaller groups (chamber music ensembles) to learn and prepare performances of developmentally appropriate music without my assistance. The final performances that many of these ensembles presented often surprised me; they were exceedingly musical,

and I could tell that the students had put great care into preparing their music. These groups of students had become a team—or, as I would later learn through my graduate studies, developed into a community of practice (Wenger, 1998), each with their own culture of interaction and methods for music learning that best fit their members.

Students learn in different ways that are affected by their local situation (Bruner, 1996). Their local culture, prior knowledge, socioeconomic status, and countless other factors play a part in how a student learns and responds to different learning opportunities. Because of this, educators such as myself must seek to develop entry points into our learning scenarios that are appropriate and appealing to our students (Bruner, 1996; Dewey, 1938/1998; Wiggins, 2015). The phenomenology (or lived experience) of what occurs in one teacher's classroom could be vastly different from that of another class in the same school building (McMillian & Schumacher, 2001; van Manen, 1990). Because of this, I embarked on a qualitative study of my students' interactions in their chamber music ensembles with the hope that it would yield findings that are unique to their learning situation, but may also be transferable to the greater research community (Lincoln & Guba, 1985).

Qualitative Research

A qualitative research study seeks to reveal the intricacies and motives of specific human phenomena through immersive studies with their research participants in their natural setting in an attempt to “make sense of, or to interpret, the phenomena in terms of the meanings people bring to them” in the most unobtrusive way possible (Denzin & Lincoln, 2000, p. 3). This type of research is also referred to as naturalistic inquiry (Lincoln & Guba, 1985). It is a study of humanity, seeking to explain the meaning of

human phenomena and share it with others in order to develop a greater understanding of lived structures of meaning (van Manen, 1990).

In the following section, I will discuss the facets of qualitative research, including reflexive design and the necessity of trust between the participants and the researcher, before discussing the qualitative modes of inquiry in which I chose to frame my study.

Reflexivity

Because qualitative researchers are not searching for an answer to a predetermined question regarding the lived experience of their research participants, like their quantitative counterparts, qualitative researchers are able to collect as much data as they can from their participants, which will be transcribed and analyzed for emergent themes in order to discover findings. In qualitative research, the researcher acts as the instrument of data collection; they are not bound to any initially stated methods of data collection. If their mode of data collection is not gathering sufficient data, they may change their collection method in order to do so, documenting it accordingly (Lincoln & Guba, 1985).

Qualitative research is reflective and reflexive research; it requires researchers to reflect on their experiences, look for connections between past observations to new happenings in the field, and reflect on their own biases to ensure credible findings (Steier, 1991). Clandinin and Connelly (2000) refer to this as focusing on the “four directions of any inquiry: *inward* and *outward*, *backward* and *forward*” (p. 50). Looking inward and outward refers to the use of self-reflection and reflection on the feelings of the study participants. Outward refers to the existential conditions, such as the environment in which participants interact. Backward and forward refer to temporality, noting that events

happen on a time continuum and that researchers must reflect on past, current, and future experiences (Clandinin & Connelly, 2000).

Developing Trust Between Participants and the Researcher

Trust between the researcher and study participants must be developed over time; prolonged engagement in the research setting with the participants could help develop this (Lincoln & Guba, 1985; Lundy, 2008). In my research scenario, most of my study participants had worked with me as their music teacher for at least three years. Over that time, I was able to develop a respectful rapport with these students, who in turn developed a trusting relationship with me.

The Teacher-Researcher

Kincheloe (2002, 2012) and Blair (2009c) posit that teachers like myself are appropriate researchers for classroom phenomena because we have established democratic working routines (Edwards, 2011) with our students and established trusting bonds. Kincheloe (2002) comments that teachers are best suited to study the phenomena in their own classrooms because of the trust they have developed with their students and because of their innate understanding of the “social, historical, philosophical, cultural, economic, political and psychological contexts” that shape and affect their school’s population (p. 18).

It is with this trust that teacher-researchers are able to navigate the research space and work “in the midst” of our students to observe and experience firsthand how our students engage with one another and record more intimate details about their local phenomena (Clandinin & Connelly, 2000, p. 68). A researcher entering a new learning space to conduct research with a group of students may not understand the complexities

shaping their lives and educational experience and would thus risk failing to create a holistic conception of how the learners function individually and as a group (Kincheloe, 2012).

In the next section, I will discuss the methods I used to collect data in the context of my music classroom.

Qualitative Modes of Inquiry Employed in this Study

Qualitative researchers engage in hermeneutic phenomenology, which is the descriptive (phenomenological) research of the essences of human interaction with interpretation (hermeneutics) of the findings by the researcher (van Manen, 1990). It goes hand in hand with naturalistic inquiry, which allows a researcher to study participants in the most inconspicuous ways (Lincoln & Guba, 1985). I chose to conduct my study with naturalistic inquiry, phenomenology, and narrative research. The following sections will discuss these modes of inquiry.

Hermeneutic Phenomenology

Qualitative research works to develop and answer essential questions about its participants. Hermeneutic phenomenological research explores deep under the surface of lived experiences to develop findings that are unique to the situation. Where quantitative research develops guiding questions (hypotheses) that are used with research methods to search for universal truths about their findings that are replicable in other settings, the findings of hermeneutic phenomenological research are local to the case study population it is observing (Clandinin & Connelly, 2000; Lincoln & Guba, 1985). Quantitative experiments can be regulated and controlled for consistency and are able to create findings that are replicable in other settings; the findings of qualitative research cannot be

fully replicated because they occur in the field and are affected by a multitude of local factors that make each research situation unique. Thus, the findings of qualitative studies, while possibly transferable to other situations, are specific to the local setting in which they were observed due to the uniqueness of the participant's life-world.

Phenomenological studies seek to create a holistic picture of a lived experience. According to McMillan and Schumacher (2001), these studies enable “readers to feel that they understand more fully the concept relating to the particular experience such as acquiring a physical handicap as a young adult or a child living through his parent's separation and divorce” (p. 36). Phenomenological research aims to provide a rich description of the research for readers to develop the most holistic understanding of the study and its participants that they can (Geertz, 1973; Lincoln & Guba, 1985). This type of thick description also helps build the research's credibility with its audience. Where quantitative research seeks to deduce findings into the smallest bits of causal information to develop valid findings, the writing used in phenomenological studies works to build a genuine image of the whole event that is without holes, strengthening its credibility (Lincoln & Guba, 1985; Wolcott, 1994).

Naturalistic Inquiry

Researchers employing naturalistic inquiry seek to study research participants using methods that are unobtrusive to their situation, such as interviews, observations, and artifact analysis (Lincoln & Guba, 1985; van Manen, 1990). Lincoln and Guba (1985) comment, “inquiry must be carried out in a ‘natural’ setting because phenomena of study, whatever they may be—physical, chemical, biological, social, psychological—*take their meaning as much from their contexts as they do from themselves*” (p. 189).

Removing participants from their natural setting to study them prohibits the observation of actions that are time- and context-dependent (Lincoln & Guba, 1985).

Contrary to the quantitative convention of not engaging with study participants, qualitative researchers enter the *Lebenswelt*, or life-world (Husserl, 1970), of the participants for a prolonged period of time. This work in the field, not just as a detached observer but as an engaged, active addition to the life-world of the participants, allows researchers to experience firsthand how the participants engage with one another while acting as the instrument of data collection (Bogdan & Biklen, 2007). It creates an opportunity to record the essences of human interaction that drive each community (van Manen, 1990).

Through this immersive, hands-on approach to the study of their participants, qualitative researchers are able to observe the richness of the everyday phenomena that their participants experience. Detailed methods of data collection assist researchers in developing credible accounts of their participants in their findings (van Manen, 1990). The focus of the study could shift from the researcher's initial intention during the research process as they begin to observe and focus on what is truly the heart of the phenomena. This is referred to as emergent design flexibility (Patton, 2002). Where quantitative researchers are locked into studying their predetermined hypotheses, naturalistic inquiry develops findings as data is collected and analyzed (Patton, 2002), which resonates with the constructivist tenet that knowledge is emergent and constructed through experiences with the content (Boardman, 2002; Brooks & Brooks, 1999; Fosnot, 2005; Phillips, 2000; Wiggins, 2015).

Narrative Research Documents the Storied Lives of Participants

Qualitative researchers work to preserve and document the humanity of their participants in their findings whereas quantitative researchers seek to develop replicable findings through collection of “hard data” (Storer, 1967, p. 79). Non-quantifiable qualities, such as the agentic or emotional experiences of the participants and researchers, often become the forefront of what is presented in these studies. Qualitative researchers work to accurately portray the humanity of their participants through narrative writing and rich, thick descriptions of local phenomena that help to describe the complexities of their participants’ lives (Barone & Eisner, 1997; Geertz, 1973; Polkinghorne, 1988; Ryle, 1968). This assists in developing *verstehen* (Bressler, 1996), or an empathetic understanding of the participant’s life-world within readers (Lincoln & Guba, 1985), which could help preserve and memorialize the humanity of their research participants through the development of a *virtual reality* of their life-world through the research text (Barone, 2009) and foster “wakefulness” between researchers and the diverse populations they are studying (Blair, 2009a, p. 3) while presenting credible findings.

Qualitative research also allows the researchers to identify themselves and their own personal experiences in the research process through the use of the “I” pronoun, which is usually omitted in quantitative research (Clandinin & Connelly, 2000; Reissman, 2008). Nevertheless, researchers treat their own biases with caution and seek to be transparent about them in both the study and report (Clandinin & Connelly, 2000).

Narrative writing helps to preserve the complexity of human actions while also outlining sequences of events and demonstrating how humans are motivated in their life-world (Clandinin & Connelly, 2000). In addition, narrative writing documents the chance

happenings, interpersonal interactions, and environmental contexts that create the research setting while also focusing on the particular and special characteristics of each action in a study (Polkinghorne, 1995). The researcher is also able to develop an empathetic understanding of the study participants through the incorporation of the vernacular language that is used and recorded in the study (Barone & Eisner, 1997; Barone, 2001).

The students who participated in my research study interacted in ways that are mediated by their local culture and interpersonal relationships. Thus, a qualitative study using a narrative approach allowed me to describe the intricacies of their unique interactions. Findings from a study of their interactions in chamber ensembles would not be replicable with other students because their lives and school settings are all inherently different. My hope is that these findings will be transferable to the reader and thus inform the music education research community.

Research Design and Data Collection

Qualitative data gathering methods help researchers to ensure the safety of their participants, gather robust data, and remain unobtrusive in the research setting. This assists the researcher in developing a holistic understanding of the life-world of their participants, but also supports the development of credible, authentic accounts of the interactions of their participants in their findings (van Manen, 1990). The following section will discuss the research design and data collection process for this study.

Research Design

I have engaged the students of my high school band class in a chamber music unit each school year for over a decade. Each section of instruments (such as trombones) is

given a piece of music to work on independently in small groups to present at an annual concert. I select music that will meet their skill levels but also challenge them to work on some of their weaker skills. Some years, the students have asked to pick their own music, and I have guided them through the selection process to ensure that the music will be appropriate for all of the students in their group.

These small groups rehearsed during the class hour independently of the rest of the band class, without my aid or interference. While this was happening, I was rehearsing the remaining students through their concert band literature. The groups rehearsed for 30 minutes about three times a week for four weeks. If the groups needed assistance, they were free to ask me, but the majority of the preparation was done by the students. They took pride in being able to present a performance that was “theirs.”

Participant Contracts and Purposeful Sampling

Before engaging in my research study, I first distributed and collected participant contracts from my students, thereby establishing a pool of potential participants. The participant contract was approved by the Oakland University Internal Review Board (see Appendix A) and by my school administrators before it was given to my students and their parents/guardians to sign and return. The contract outlined the basic methods of data collection, how student identities would remain anonymous in published findings, and noted that the student may withdraw from participating in the study at any time without penalty to their class grade.

Once I received the completed participant contracts and began reviewing data, I narrowed the scope of the study to a representative group or groups of students who would act as key informants (Lincoln & Guba, 1985), providing a rich data source for the

study and offering “useful manifestations of the phenomenon of interest” (Patton, 2002, p. 40). In the next section, I will discuss how I collected data from my participants.

Data Collection and Refinement

Qualitative data collection is gathered through three sources: “(1) in-depth, open-ended interviews; (2) direct observations; and (3) written documents” (Patton, 2002, p. 4). My observations of my participants occurred using recorded materials. While I reviewed the recorded materials, I transcribed conversations that occurred among the participants and kept a journal of field notes of my thoughts, which aided in data coding. During the data recording process, I interviewed several participants in order to gain greater insight into what I observed and recorded my thoughts in the field notes. The following section describes these events and how I refined the data with my participants using member checks and peer debriefing.

Video and Audio Recordings

The majority of the raw data in my study was collected using digital video and audio recorders. During the chamber music unit in my class, multiple groups of students learned their pieces at the same time in different practice areas in my classroom. I was able to observe each group regularly by reviewing their rehearsal video and audio recordings. The video camera and audio recorders were small and equipped with high-fidelity cameras and microphones that collected the voices of students and recorded their body movements as well as their musical interactions. My students were comfortable with me using the video and audio recorders during our full ensemble rehearsal time to record and review our concert selections; the presence of the recorder did not seem to affect their actions in my class. I started each recording session by escorting the student

participants to their practice location, pressing the start button of the camera or audio recorder for them, and then left the room while they rehearsed their music. The students then returned the data collection equipment to me when they finished rehearsing, and I saved the files in a secure folder on my password-protected computer for later review.

Interviews

Interviewing participants is another way for researchers to deepen their data collection while also recording firsthand accounts and reflections on the phenomena occurring in the research setting. Interviews are an intimate way of collecting stories from participants. Seidman (1998) contends that “stories are ways of knowing” and can be used to gain insight into how a participant develops meaning out of their experiences (p. 1). This resonates with Kvale (1996), who comments that “an interview is literally an inter view [*sic*], an inter change of views between two persons conversing about a common theme” (p. 44). Interviewing participants about the themes and occurrences in their life-world allows them to select “consecutive details of experience, [reflect] on them, [give] order to them, and thereby [make] sense of them” to develop and give meaning to their experience (Seidman, 1998, p. 1). In essence, an interview allows a participant to reconstruct an experience based on their memory and what they currently feel is important about a past event (Seidman, 1998).

I interviewed my study participants informally. My students were aware that during the chamber music unit, I would periodically visit each group to gauge their progress, ensure they were working productively and respectfully, and answer any questions they may have. Many of the interviews were an informal check-in, but a few occurred in my office with individual students as I made observations of their group

while reviewing the videos. All of these instances were recorded with the recording equipment, and I notified students if I intended to record their comments if an interview took place outside of their group's rehearsal setting.

As I collected the participant data through video and audio recorders and transcribed conversations, I also took copious notes on their musical and nonverbal interactions. The following section will discuss this process.

Field Notes and Transcriptions—My Prolonged Engagement with the Data

I journaled my observations, thoughts, and feelings about what I witnessed as I reviewed the recordings on my computer and transcribed the verbal and musical discussions my students had with each other and documented their body mannerisms and the music learning strategies they employed to help develop themes in my research. I reviewed each video multiple times, refining my field notes regularly as I made richer observations.

Reviewing participant recordings and refining field notes and transcriptions over time helped to establish a prolonged engagement with the data. Lincoln and Guba (1985) define prolonged engagement as “the investment of sufficient time to achieve certain purposes: learning the ‘culture,’ testing for misinformation introduced by distortions either of the self or the respondents, and building trust” (p. 301). Prolonged engagement with the data allows for the researcher to develop a refined, accurate interpretation of the life-world of the participants, which ensures that the researcher will be able to account for any distortions in the data collected (Lincoln & Guba, 1985).

Self-reflection and documentation of my personal biases in the field notes were also necessary as I began to identify themes. Researchers are humans; we all have

personal biases that are a result of our personal culture. Clandinin and Connelly (2000) comment,

We all, novice and experienced researchers alike, come to inquiry with views, attitudes, and ways of thinking about inquiry... These histories, these personal narratives of inquiry, may coincide with or cross a boundary to varying degrees with the actual inquiries that we undertake...we are forever struggling with personal tensions as we pursue narrative inquiry. (p. 46)

Field notes taken during the recording review process may fail to identify the entire situation unfolding in the research scenario because they are written quickly during the experience. It is essential that all researchers spend time reviewing field notes and adjust them to accurately record observations and thoughts, as teachers similarly reflect on their actions following the end of a lesson. Review of field notes is critical for developing unbiased findings and credibility in research and aligns with Schön's (1983) philosophy on teacher reflective practices: reflection-in-action and reflection-on-action. Reflection-in-action would relate to the details and thoughts collected during interactions with the students. Reflection-on-action would relate to refinement of field notes after the initial observation while reflecting on the experiences of participants and emergent themes in the data.

Member Checks

During the research process, I engaged in member checks with the participants, which allowed them to review the collected data to ensure that the essence of their actions was captured in a satisfactory way (Lincon & Guba, 1985). This allowed the participants to correct errors and "go on record as having said certain things" (Lincoln & Guba, 1985, p. 314). I conducted member checks with my study participants while they were working in their chamber music groups and individually. These were recorded and

transcribed. Additionally, unplanned member checks occurred during the normal school day at times I had not anticipated, for instance, as the participants were entering or preparing to leave my classroom. While not recorded, these interactions were noted in my field notes.

Peer Debriefing

Peer debriefing “is a process of exposing oneself to a disinterested peer...for the purpose of exploring aspects of the inquiry that might otherwise remain implicit within the inquirer’s mind” (Lincon & Guba, 1995, p. 208). I engaged in peer debriefing sessions with the other members of my doctoral cohort to review raw data samples from my study and discuss emergent themes. My colleagues then had opportunities to ask me probing questions, which prompted me to see the data in a new way or explore aspects that I found compelling. These debriefing sessions helped me put into words what I was having issues describing in my writing and to clarify developing themes.

Data Coding and Categorization

Data coding is the identification and grouping of emergent themes in research.

Bray, Lee, Smith, and Yorks (2000) comment that themes are

the sense we are able to make of the phenomenon, the product of insightful discovery and disclosure. At best a theme is a distillation, but not necessarily a clarification. In our [qualitative work]...we strive to recapture the experience *as it was experienced*. (p. 102)

After collecting and analyzing the themes that emerged from my research, the themes were cohesively grouped and coded. Chenail (2008) comments that categorization of separate codes is the next step in discerning patterns that help researchers to “describe overtly what they have observed and to segment the phenomena into units” (p. 72). To

bolster the credibility of these categories, Chenail (2008) comments that exemplary data artifacts (such as quotations and excerpts from field notes) should be presented in the final research publication.

I developed my codes as themes emerged. I documented the verbal and nonverbal interactions between my study participants to identify patterns that related to interaction (socially and physically) and the way I perceived the participants to be observing the needs of others in their groups. I then categorized these themes into patterns which I will explore in the next chapters.

Triangulation

Triangulation is the process of checking the data collected against another source or research method (Firmin, 2008; Lincoln & Guba, 1985). Thurmond (2001) notes that triangulation is used to enhance the ability to interpret findings by combining multiple theoretical perspectives, methodological approaches, or data sources. Bogdan and Biklen (2007) concur, adding that multiple data sources can “lead to a fuller understanding of the phenomena you were studying” (p. 116). Comparing one’s collected data to other published findings can help ensure that it is credible and unbiased. This resonates with Wilson (2014), who posited that rich data and confirmation of research results are dependent on multiple approaches to data gathering and checking.

I triangulated my data as I compared my field journal observations to multiple viewings of the video recordings of my participants, as well as their interviews. When possible, I referred to existing literature in the field to confirm if my data resonated with past findings or presented information that was unique to my participants’ life-world.

Analysis and Presentation of Findings

As I analyzed the data from my study, I tried to be aware of my personal biases that may affect how I interpreted the findings. In the following section, I will discuss the steps I took to develop validity in my findings and check my personal biases.

Developing Validity

Qualitative research is concerned with presenting accurate, credible findings that have been checked and reviewed by multiple parties—participants and research peers—before publication. It rejects the notion of a single reality, recognizing that there is a multiplicity of realities in which each person constructs their own life (Brooks & Brooks, 1999; McMillian & Schumacher, 2001; Wiggins, 2015). Because of this, “no two people have the same conception of a state of affairs” (Barone & Eisner, 1997, p. 87). There is a multiplicity of realities occurring in every setting and no exact set of circumstances to tell us whether something is correct or not (Wolcott, 1994).

A researcher must consider whose truth they are trying to present: their own, the participants’, or that of a certain population of participants in the study (Bressler, 1996), and be transparent about the methods that they used to gather data to present the most unbiased account of the phenomena of study. Through this, a researcher can establish validity in their research, or a soundness in their findings where “‘the truth’ is accurately identified and described” (Miller, 2008). In this section, I will discuss my personal biases.

My Personal Biases

A researcher must be aware of their subjectivities, biases, or orientations and work to disclose these to their readers in their writing (McMillian & Schumacher, 2001; Peshkin, 1988). The participants of my study had all been my students for at least three

years before the study began. This helped develop mutual trust before I requested their participation in the research study.

I am also a classically trained musician who has studied Western music traditions since I was in elementary grade school. My students have received similar instruction from me. I do not have extensive experience in improvisatory music making or music making via oral traditions, but my students might have experienced this, especially because they live in an area with a rich folk music tradition. I was concerned that my students' formal music training might hinder them from using creative nonstandard methods to learn their music in their chamber music groups. I also knew their weaknesses as instrumental ensemble musicians, which may have affected my ability to observe their true abilities when reviewing the videos and writing my field notes.

Presentation of Findings

Qualitative researchers such as myself work to ensure their findings are valid through triangulation and identification of their personal biases. The data and emergent themes I will present in the following chapters were reviewed using the methods described in this chapter. It is my goal that other researchers will be able to draw connections to their local setting and use the findings to help inform their teaching practice.

CHAPTER FOUR

DATA ANALYSIS: THE NATURE OF LEARNING IN A STUDENT-LED MUSICAL COMMUNITY OF PRACTICE

Introduction

In this chapter, I will discuss themes that emerged from the data. The triangulated data was collected from my research journal and transcriptions of discussions among my student study participants. Through recursive data analysis, I investigated how students interact and learn within their chamber music ensembles (Bogdan & Biklen, 2007; Denzin & Lincoln, 2000; Lincoln & Guba, 1985). Initial themes emerged regarding the development of trust and agency, which then led to entering the Zone of Proximal Development (Vygotsky, 1978) to develop their intersubjective knowledge (Rogoff, 1990; Trevarthen, 1980) into a functional community of practice (Wenger, 1998; Wenger, McDermott & Snyder, 2002). Several instances of flow (Csikszentmihalyi, 1990/2008, 1998/2013) also occurred, which support the notion that the participants entered a *shared* Zone of Proximal Development. I will discuss my concept of a shared Zone of Proximal Development in Chapter Five. Several vignettes from the data will be presented to discuss these themes. For clarity, participant narratives are italicized and data from my teacher-researcher journal is not italicized.

Risk-Taking and Trust in Student-Led Musical Ensembles

It is common for students in a high school band to be grouped into small ensembles for the purpose of learning music more effectively through interactions with their peers. This often occurs in marching band settings (Rose, 2025) but I have experienced success transferring these group interactions to the indoor concert band

setting as well. As I studied the interactions of my concert band students in their chamber music ensembles, I was able to investigate how their actions toward each other through risk-taking affected the development of collective trust.

Risks from Day One: The Trombone Ensemble

Lincoln and Guba (1985) and Lundy (2008) affirm that trust must be established between study participants and the researcher. Before trust is established, risks must be taken to establish norms of interactions among groups. My research nudged this concept of trust a step further and examined the interactions of participant groups as they developed trust amongst themselves in order to be successful music learners.

My trombone chamber ensemble was a tight-knit group of students, despite their apparent differences. Dillon³, Rene, and Peter were very popular eleventh-grade students. They were generally outgoing to everyone in class and well-liked among all the students. Noel and Matt were in ninth and tenth grade respectively, and less extroverted than the older three. Noel was especially quiet in my band class and suffered from anxiety. In the following example, I observed how Rene, the section leader of the trombones, helped to build collective trust within the group as they embarked upon their initial sight-reading of their chamber music project:

The camera begins filming in the instrument room, which is the designated practice area for the trombone chamber music ensemble. Dillon, Matt, Noel, Peter, and Rene have placed their music stands down in a straight line so they are in the view of the camera. After initial review of this video, I recommend they make a half-circle shape in order to see each other better when they rehearse.

Rene: So, first I think we are going to have to figure out what parts we play. Are we going to have someone do the fourth part?

³ All participant names have been de-identified using pseudonyms.

She looks around and eyes Noel.

Rene: Could you do that part alone?

Noel: Sure, I have a lot of experience in low trombone.

I am happy Noel took the job of fourth part alone. He is often quiet and withdrawn but enjoys music and works hard to learn his part. Originally a clarinet player, he asked to play the trombone during COVID times as a challenge when he was in seventh grade and became successful with it.

Rene: We're going to need two on second and one on third. They have to be strong.

As she says this, she is writing on the part assignment worksheet I gave her group before they convened. Matt volunteers for third part and Dillon takes second.

Rene to Matt: You have to be able to play it out and you have to be able to play it loud, and I don't want someone who is not going to do that. Do you think you can play it loud?

Matt nods, avoiding eye contact. The group marks what part they have to play on the ensemble score.

Noel: Rene, do you want me to learn the third part, just in case?

He gestures outwardly, as if Matt will not be able to handle it. She agrees. Dillon suggests learning the parts separately. The group sizzles⁴ the first line of the first part. Noel asks for a pencil. Peter asks for clarification of who plays the high or low notes on the fourth part and Rene clarifies. The group decides to play the opening of their music and stop after a few bars.

Rene: That beginning is tricky but not very fast [she demonstrates her line to them]. That's kind of how it goes. Do you want to try it again?

Dillon: Let's do the whole thing.

Peter: We should do the opening section again.

The others nod. Rene counts them off, this time much stronger. The piece is rhythmically clearer.

⁴ The act of "sizzling" in this context refers to using the player's air and tongue to hiss the rhythm and articulation of a passage without performing it on the instrument.

Rene: Okay, the harmonies sound great. At least you guys are getting the key. That's pretty good. I think the rhythms are getting a little better too.

The group nods and add in their quips of agreement.

Rene asks if the group wants to rehearse at measure nine. Peter suggests pushing forward.

Peter: I say we just sight read through it and if we need to go back.

Rene: Ok. If we all start stopping, we're obviously going to stop.

The rest nod their heads and they begin playing. The first theme sounds clearer, but they fall apart at the first variation. They stop.

Rene demonstrates how to play the afterbeats with her instrument.

Rene: It goes like this.

She sings the rhythm using a “duh” syllable. Dillon accompanies her by singing the backbeats “and—and...” Noel is conducting time to himself as they do this. Without warning, Dillon and Matt start playing their part at variation 1. The others join. It falls apart, they work through their parts alone. I am surprised that all of the individual thinking and muddling that occurred turned into an unannounced run-down of the section that the group was struggling with.

Eventually, Rene stops everyone.

Rene: Okay, does everyone understand the syncopation in that spot?

They nod to acknowledge their understanding. While this is happening, Peter is tapping his leg looking at his part. There is something on the page that caught his eye. Rene calls out an area to start and counts the group off.

Rene: Ok, that sounded a lot better than last time!

The trombone players took many risks that could have affected their group dynamics in this initial rehearsal. Volunteering to play certain parts could have signaled insecurity or disinterest in their music. The older musicians all took the higher parts, but Noel confidently volunteered to not only learn his part, but also the fourth part (to assist Matt).

Rene also took risks as the group leader in this vignette. Though not assigned as group leader, she became the dominant voice in the conversation and helped to guide the others through the reading of their music. As the rehearsal progressed, the general conversation routed to and from Rene without any competition from the other players, and they accepted her feedback with nods of approval, creating silent, or tacit, standards of interaction (Bruner, 1990; Hundeide, 1993; Polanyi, 1966). This back-and-forth method of interacting as a group with Rene as leader could be considered the genesis of this group as a community of practice (Lave & Wenger, 1991).

A final positive reinforcement of Rene's risk-taking occurred when all the musicians were working on their parts using their own strategies. Each member of the group had entered their Zone of Proximal Development to learn their part and explore how it would fit within the whole of the ensemble. Rene interrupted this:

I am surprised that all of the individual thinking and muddling that occurred turned into an unannounced run-down of the section that the group was struggling with. Eventually, Rene stops everyone.

Had she not earned the respect of her peers, this interruption could have been considered rude, and potentially deleterious to their conceptualization of the piece. Several of the musicians may have entered a flow state (Csikszentmihalyi, 1990/2008; Csikszentmihalyi, 1998/2013; Elliott, 1995), which is generally a pleasurable experience that makes the learner want to do more of the same. As Rene interrupted this potential flow state, she risked appearing controlling and inconsiderate of the individual needs of her group. When the group agreed to resume their tutti rehearsal with her, they rewarded her risk with an improved performance, and earned a compliment on their performance, strengthening their bond.

Peer Interaction Develops Agency Through Trust

As students interacted with one another in learning scenarios, they had opportunities to actively build their collective trust and foster agency for future scenarios within the same group of learners (Blair, 2009b; Rogoff, 1990; Vygotsky, 1978).

Ponomariovienė and Jakavonytė-Staškuvien (2025) note that agency develops over time as a learner develops trust within their learning environment: “Agency is not innate—it develops gradually—and fostering it requires specific pedagogical preconditions: a safe and supportive learning environment, authentic student engagement, opportunities to make choices, purposeful feedback, and consistent teacher guidance” (p. 3). As trust develops, a learner’s willingness to take greater risks in their learning may increase their ability to enter the Zone of Proximal Development. Rogoff (1990), expounding on Erickson (1987), links the Zone of Proximal Development to a place of risk taking, as

learning requires risk taking, since learning involves functioning at the edge of one’s competence on the border of incompetence: ‘If the teacher is not trustworthy, the student cannot count on effective assistance from the teacher; there is a high risk of being revealed (to self and others) as incompetent.’ (p. 202)

Thus, entry to the Zone of Proximal Development is an intimate and vulnerable time for the learner. A learner’s reputation among their peers—and self—may be diminished if their request is viewed as unnecessary or unworthy of the other’s efforts.

Positive, supportive interactions among peers can fuel the development of this trust, although the opposite is also possible. In this section, I will discuss the experiences of Noel and Matt, who had differing experiences after signaling to their group that they needed help learning their music.

Noel’s Positive Shift in Perezhivanie

During the time of data collection, the trombone chamber ensemble was an eclectic mix of five students in ninth, tenth, eleventh, and twelfth grades. Three of these students (Dillon, Peter, and Rene) were involved in several extracurricular activities outside of band and, from what I could observe in my daily observations, were fairly popular among the general student body and had an air of confidence around them.

Noel was generally the opposite of his trombone section mates. He kept to himself in class and usually stayed close to his small group of friends during social times in class. He did not seem to be a confident musician and chamber music time could be challenging for Noel because that required him to perform a part that was different from the others. In the following example, note how several of his group mates helped him increase his confidence:

Noel: I think I could have a more confident trombone player play the fourth line to see if there's something that I can fix.

Matt: Where?

Rene: Do you want us to play at measure 9?

Matt: Where?

Noel: I don't know, just wherever, because it's difficult.

Rene: Do you want us to play at measure 9 to see if I can play it? Or Dillon?

Noel nods to Rene to signal that he needs help there.

During this time Matt is playing through Noel's part quietly, and Dillon is studying it with his eyes.

Dillon to Noel: I'm bad at sight-reading that low.

Peter: Do you want us to play the top part or the bottom part?

At this moment, the discussion has devolved into all-out self-practicing among Peter, Dillon, and Matt. They seemed to want to figure out Noel's part. Rene is looking at his part on her score, too, and singing through it.

During this time, Noel has listened to the others and has not played but he is observing the frenzy of interaction among his peers and listened to them work to learn his part.

Dillon: I say we do a run through before we run out of time.

A chorus of "Yeah's" occurs. Noel nods in agreement.

Peter: Yeah, we've just got a minute remaining.

Rene: Let's just do a full run through so we can get through all the parts.

Rene counts the group off and they begin playing. Noel performs his part with much more confidence than before the discussion began, including with more apparent confidence in his playing stance.

Noel's simple request for help from his peers catalyzed several things in his group. The first was the frenzied, semi-coordinated attempt for all of the other learners in his group to teach themselves his part. I observed their trials and triumphs as they entered their Zone of Proximal Development. He, too, most likely entered the Zone of Proximal Development with them as he observed their varied practice techniques. As this was occurring, Noel also observed the other students fail at performing his part properly and admit that they, too, struggled with certain aspects of the music.

Noel may have experienced a positive shift in his perezhivanie that day. As noted in chapter two, perezhivanie is an emotional component of risk-taking that affects a learner's entrance into the Zone of Proximal Development (Blair, 2009b; Cong-Lem, 2002; Vygotsky, 1994). Early in the vignette, Noel indicated that he needed help from a more confident person in his group, which highlighted a potential deficiency in what he considered his music performance capabilities, potentially making him a target for

negative comments from his peers. Should this have occurred, he would have experienced a negative change in his *perezhivanie*, which may have stifled his desire to reach out for help in future situations (Cong-Lem, 2002; Vygotsky, 1994). He may have experienced negative emotional reactions regarding his musical ability had his peers mocked his inability in this scenario. Fortunately, this did not happen. Cong-Lem (2002) notes, “Indeed, *perezhivaniya* also result in the development of one’s emotional life, which in turn has an impact on one’s thinking and intellectual development” (p. 234). Matt, Dillon, and Peter, however, understood Noel’s comment as a candid request for help and entered their shared Zone of Proximal Development to learn his part. Noel followed them into the zone, observing their practice techniques to better understand his part.

In this vignette, Noel may have experienced a positive shift in his *perezhivanie* because his peers understood his need and respected his request for assistance. Their willingness to help Noel overcome his learning challenge could have helped Noel understand that his needs were valid and that he was welcome as a participant in the ensemble. In future rehearsals, Noel became more willing to help his peers when they faced learning challenges and took more risks while learning his music with the group.

Matt’s Negative Experience

Matt experienced the opposite of Noel’s musical triumph and social growth during one of the trombone section rehearsals. His lack of confidence, coupled with a history of not taking his role in the trombone section as seriously as the others, came to a head in an early October rehearsal as he revealed he struggled with the music he was given:

Rene decides that she needs to rehearse the second and third trombone parts. She turns to face Dillon, Matt, and Peter, who play their part for her. The part is very technically demanding, and they struggle to play it clearly.

Rene: Ok, you guys have got to get that part down. It's very fast right there. Matt, can you play your part?

Matt starts playing his part but begins to giggle as he struggles through it. Rene scolds him for this. Peter shakes his head and Dillon looks away.

Rene: If you are going to laugh, you shouldn't be playing at all, so take it seriously.

Matt: It's different playing alone than in a group!

Peter expresses to Matt that they are wasting time.

Peter: We're going to run out of time. We have ten minutes left, so please just play.

Matt plays the part again but struggles.

Matt: Sorry, it's just the sixteenth notes at the bottom are messing me up.

Dillon: What if we clap the beat?

The whole group claps tempo for Matt while he plays the part again. They do this several times. The first time they clap is a bit faster than Matt anticipated, so they slow it down for a second run. Matt's performance improves this time.

Rene plays the part to develop an understanding of it. She also sings it to herself, something that I have modeled and practiced in elementary and middle school band rehearsals, but not often at the high school level.

Rene: It's just because it's on the offbeat that it's difficult.

Dillon is playing the rhythm of Matt's part slowly as Rene says this. She gestures to Matt to perform the part again, but he still struggles with the part. Dillon and Rene clap the tempo while he tries to do this. Rene appears visibly upset with Matt, as though his inability to play the part is a sign of not caring for the success of her group, and wants to move on.

Rene: Let's move on. Matt, if you can't get that part, I will have someone else play it.

Later in this same rehearsal, Matt's challenge is revealed again.

The group finishes playing their music. Matt still struggled to execute his part. Peter checked in on his confidence.

Peter: Matt, are you going to be OK with that?

Dillon to Matt: Do you want to play fourth part?

Matt: I think measure seventeen to the end is going to be OK, but it's just the sixteenth notes right there, and right there [he gestures to his part for Dillon and Peter to see]. It's just that the sixteenth notes are really quick.

Matt has admitted that a spot with sixteenth notes is troubling for him. He points to the area in his music. Rene watched her part during this time, looking for where Matt is talking but she has her body turned away from him for this. When he is done talking, she tries to play Matt's part, which takes several attempts to play cleanly.

Rene: Oh, OK.

Dillon also plays the part that Matt is struggling with. I can hear that it is a rhythmically active part.

Rene: Why don't we just move him to fourth part and move on?

Dillon offers a more constructive approach.

Dillon: How about for now you just play those as one eighth note?

Dillon points to Matt's music to show him what notes to play. Instead of four sixteenth notes in a row, Dillon is recommending playing every first and third note of the passage.

Matt plays the part as Dillon recommended, but is unsuccessful. He lowers his instrument from his mouth and shakes his head. Rene is not impressed.

Rene: Matt, if you can't play that part, I am going to put someone else on it.

Matt is silent after this and avoids eye contact with Rene and the rest of the group. They perform this section of music an additional time, but Matt still struggles with his part. Once the rehearsal concludes, he leaves the room quietly, avoiding eye contact with Rene.

This rehearsal vignette highlighted Matt's inability to meet the demands of this musical challenge, even after his peers Dillon and Peter tried to scaffold Matt through the Zone of Proximal Development by demonstrating his part, clapping the tempo of the piece, and offering to reduce the rhythmic complexity. Their visible impatience with him, Peter's recalling of the amount of rehearsal time they had left, and Rene's threat of changing what part he was playing, caused a visibly negative shift in his *perezhivanie* that affected his desire to persevere through the rehearsal and make eye contact with his group mates. This resonates with Davis (2015), who proposed that as a person internalizes their experiences in a learning challenge, they interpret the experience during that moment, but also refract the experience through "memories, dispositions, historically accumulated knowledge, other factors within the current social situation and visions of possible futures" (p. 65). Matt's experience in this rehearsal could have significantly reduced his learner agency within this group because his *perezhivanie* was negatively changed.

A Shared Way of Interaction: Foundations for a Community of Practice

The study participants demonstrated their dedication to one another and the success of the group through various means: Rene assumed the leadership position for the ensemble and worked to keep rehearsals timely, Noel admitted his struggle to learn his part and asked for help from his more knowledgeable classmates, and the lengths to which Matt's peers worked to help him be successful with his part all demonstrate that each member of the ensemble was committed to their shared success. These interactions also highlighted unspoken yet agreed-upon rehearsal norms and a shared commitment to the health of the group, which could suggest the existence of shared intersubjective

knowledge and affirm the trombones as having founded a functional community of practice. In this section, I will refer back to the three vignettes from the previous section and provide additional instances to support these ideas.

Shared Intentions: The Groundwork of Intersubjective Knowledge

The trombone players demonstrated several instances of a shared intersubjective repertoire of skills in their rehearsal. Intersubjective knowledge is developed through sharing and refining thoughts with others and developing a shared repertoire of skills (Trevarthen, 1980). This resonates with Rogoff (1990), who further defines intersubjective knowledge as a “shared understanding based on a common focus of attention and some shared presuppositions that form the ground for communication” (p. 71). Vygotsky undergirds this in his writings by claiming that the development of intersubjective knowledge creates opportunities to expand learning to new points by relating it to what is already known (Rogoff, 1990; Vygotsky, 1978), thus clearing the way for rich interactions within the Zone of Proximal Development.

Rene’s Social Groundwork

In the first vignette, Rene took several risks as she guided the rehearsal, all of which helped to affirm her as group leader and develop the cooperative intentions of the group. The first instance occurred as she assigned parts to the other members of the group:

Rene: So, first I think we are going to have to figure out what parts we play. Are we going to have someone do the fourth part?

She looks around and eyes Noel.

Rene: Could you do that part alone?

Soon after this, she asked the others to cover the remaining parts and implied her expectation of the parts to be learned and executed to the best of their ability:

Rene: We're going to need two on second and one on third. They have to be strong.

As she says this, she is writing on the part assignment worksheet I gave her group before they convened. Matt volunteers for third part and Dillon takes second.

Rene to Matt: You have to be able to play it out and you have to be able to play it loud, and I don't want someone who is not going to do that. Do you think you can play it loud?

As Rene assigned parts to her classmates, she also assumed several unspoken roles within the ensemble: the first was as leader for the group. Her readiness to assign parts and demand strong playing from Matt created a social contract between her and the group that outlined her expectations for the group's success under her leadership. The lack of pushback from the others most likely empowered her to continue leading the group in subsequent rehearsals, establishing her as the coordinator for the group, which resonates with Trevarthen's (1980) claim that intersubjective knowledge requires "both recognition and control of cooperative intentions" (p. 530). In the second vignette, Rene reinforces her role as group facilitator as she worked to help Noel:

Rene: Do you want us to play at measure 9 to see if I can play it? Or Dillon?

Noel nods to Rene to signal that he needs help there.

In another rehearsal, she more directly asserts herself as leader to Matt, who was off task. The other members of the group reinforced her, affirming her leadership status and their commitment to a quality learning experience.

Rene: Shall we warm up?

They agree and she counts them off to play the B-flat major scale.

Dillon: I have pretty good tone.

He smiles and nods. Noel is yawning.

Rene: You do. Let's do a Remington now.

The others nod. Matt is moving through the room, looking for something. He has not played yet. He shuffles his paper to the music stand. Dillon and Peter side eye each other while watching him. They are not impressed; they seem to view him as lackadaisical and uncommitted to the group.

Matt: I suppose we'll look at this piece.

Rene: We've only got until 8:30, so get moving.

Matt motions to a fabric slide cover on his slide:

Matt: Do you think Mr. Czarnik will mind if I leave that on my instrument?

The others are not amused at this question and shake their heads, showing disapproval for Matt's attempt to stall the rehearsal.

Peter: Come on Matt, play with it on, it doesn't matter.

Rene: Yes, let's go. We're going to do the B-flat scale, half notes.

One can hear the pressure of the time remaining straining her voice as she says this. Even Peter and Dillon appear rushed to do the warm up and are upset with Matt about his lack of timeliness.

Matt moves into position between Peter and Dillon.

Matt: Why don't we do E-flat?

Rene asserts herself.

Rene: No, we're going to do B-flat because that is the key the piece is in.

She counts the group off, and they play through the scale.

Rene: Ok, I think we're just going to run the piece straight through and then we will go back and work on it.

Dillon, Noel, and Peter nod in approval. Matt is playing with his trombone slide.

Dillon: I say we run through it and focus a lot on dynamics, so it sounds interesting.

He smiles and looks at Rene, who agrees with a nod of her head.

Rene: So first of all, look at your dynamic marks because there's a lot of them in there [she pauses to look through her own part]. We're going to run it straight through.

In the final paragraph of the vignette, Rene affirmed Dillon's recommendation to work on dynamic contrast, which could have signaled to the others that she respected his contributions to the group's success, deepening her social relationship with the group while developing a pattern of cooperative intentions among all of the musicians.

A Spectrum of Participation

The trombone players participated in their group at levels that were authentic to themselves while building their intersubjective knowledge. Piaget viewed learning as the act of regaining equilibrium in an ever-developing learning field; as challenges surpass the capability of a learner, they must adapt their schematic understanding of a concept to keep up with their peers (Piaget, 1977; Rogoff, 1990). This resonates with Vygotsky, who notes that "cognitive conflict provides an impetus for children to seek equilibrium at a higher level" (Rogoff, 1990, p. 173). Wiggins (2015) affirms this, adding that learning resembles a social apprenticeship model, "where an expert and novice work side by side, with the apprentice performing those portions of the task in which he or she is competent, and the expert filling in and providing support or scaffolding where necessary" (p. 43).

As the trombone players learned their music, they entered the Zone of Proximal Development through collaboration with a stronger musician. Rogoff (1990) refers to these collaborative learning moments as guided participation, but much learning also

occurred in a less direct way, namely through asymmetrical moments of intersubjectivity such as observing and eavesdropping. These themes will be discussed in the following sections.

Guided Participation. Collaboration with peers within the Zone of Proximal Development is referred to as scaffolding (Wood, Bruner, & Ross, 1976) and guided participation (Rogoff, 1990; Wiggins, 2015). It “involves collaboration and shared understanding in routine problem-solving activities. Interaction with other people assists [learners] in their development by guiding their participation in relevant activities, helping them adapt their understanding to new situations” (Rogoff, 1990, p. 191).

Several instances of guided participation occurred in the trombone vignettes. A first example occurred in Rene’s vignette, where the group began learning the first section of music together:

Dillon suggests learning the parts separately. Rene plays a bit of the first line. The group sizzles the first line of the first part. Noel asks for a pencil. Peter asks for clarification of who plays the high or low notes on the fourth part and Rene clarifies. The group decides to play the opening of their music and stop after a few bars.

Rene: That beginning is tricky but not very fast [she demonstrates her line to them]. That’s kind of how it goes. Do you want to try it again?

They nod.

Dillon: Let’s do the whole thing.

Peter: We should do the opening section again.

The others nod. Rene counts them off, this time much more confidently. The piece is rhythmically clearer.

There were three subtle instances of guided participation in this vignette. The first was Rene’s quick demonstration of the first line followed by an unprompted performance

of the line by the full ensemble. Rene then played the line alone a second time, followed by a request for affirmation from the rest of the group, confirming their confidence in trying the part again. This yielded greater rhythmic clarity.

Despite the challenges in Matt's vignette, there were clear attempts at guided participation:

Dillon: What if we clap the beat?

The whole group claps in tempo for Matt while he plays the part again. They do this several times. The first time they clap is a bit faster than Matt anticipated, so they slow it down for a second run. Matt's performance improves this time.

Rene plays the part to develop an understanding of it. She also sings it to herself.

Rene: It's just because it's on the offbeat that it's difficult.

Dillon's initiation of the group tempo while Matt practiced could have helped ensure that Matt could create a rhythmically accurate interpretation. Rene's practicing of the part can also be described as guided participation that assisted the full ensemble (not just Matt) in entering the Zone of Proximal Development because it offered the musicians two opportunities to hear the part (performed on an instrument and through singing) and may have also signaled to the rest of the ensemble that muddling (Duke, 2012; Neill, Corder, Wikitera, & Cox, 2017) through the content is acceptable and welcome in this ensemble and could help the students learn their parts quickly.

Asymmetrical Intersubjectivity: Observing and Eavesdropping. Rogoff (1990) comments that asymmetrical intersubjectivity is highly important for learners because it assists in righting the disequilibrium that learning challenges pose: "It is important to consider asymmetrical intersubjectivity, with [learners] gaining a great deal from observation. Observation may be a very important and commonplace way for a

novice to be involved in skilled processes” (p. 205). She later comments that observations of social interactions inform learning:

[Learners] pick up information from observing the interactions of other people...it is not necessary for partners to attempt to teach their roles to be considered supportive of [learning]. [I have proposed] that guided participation includes tacit structuring of communication and arraignments of the activities of [learners]...There are many social opportunities for learning that are at least momentarily one-sided with children observing adults of skilled peers. (pp. 207-208)

Noel’s vignette from above offers a clear example of observation and eavesdropping being used to enter the Zone of Proximal Development through indirect means:

At this moment, the discussion has shifted to all-out self-practicing among Peter, Dillon, and Matt. They seemed to want to figure out Noel’s part. Rene is looking at his part on her score, too, and singing through it.

During this time, Noel has listened to the others and has not played, but he is observing the frenzy of interaction among his peers and listening to them work to learn his part.

Dillon: I say we do a run-through before we run out of time.

A chorus of “Yeah’s” occurs. Noel nods in agreement.

Peter: Yeah, we’ve just got a minute remaining.

Rene: Let’s just do a full run-through so we can get through all the parts.

Rene counts the group off and they begin playing. Noel performs his part with much more confidence than before the discussion began. I can observe him performing with more apparent confidence in his playing stance.

During this portion of the vignette, Noel did not play his trombone. He observed his more capable peers enter their Zone of Proximal Development and use their repertoire of skills to teach his part to themselves. He also listened to—or eavesdropped upon (Rogoff, 1990)—their errors and triumphs while they learned his part. While this

occurred, he entered his own Zone of Proximal Development, tacitly observing the rehearsal strategies of his peers to scaffold his own musical understanding in a novel way.

Noel was not entirely helpless in this learning vignette, but he required assistance from more knowledgeable peers to overcome the challenge posed by one section of his music. The scaffolding they provided allowed Noel to overcome his challenge. This resonates with Dewey (1916/2008), who notes that appropriate learning challenges have benchmarks for understanding built in: “new problems [must be] large enough to challenge thought, and small enough so that, in addition to the confusion naturally attending the novel elements, there shall be luminous familiar spots from which helpful suggestions may spring” (Dewey, 1916/2018, p. 167).

Shared Intersubjectivity Catalyzes Communities of Practice

As the trombone students developed their intersubjective knowledge of their chamber music, they also bonded as a cohesive community of learners, known more commonly as a community of practice (Wenger, 1998). Development of intersubjective knowledge is requisite for a community of practice, which is a “community created over time by the sustained pursuit of a social enterprise” (Wenger, 1998, p. 53). Wenger (1998) writes that meaning, or shared knowledge, is negotiated by community participants who are engaging in shared practice, such as learning music. The adoption of roles within the group, and negotiation of expectations further strengthen these bonds. Additionally, communities of practice involve participation—either directly or semi-passively in order to transform knowledge for applications at later times, all of which were demonstrated by the trombone section.

Roles and Expectations

Participation in chamber music ensembles are a requirement for my high school band class. My only expectation of the students is that they work together to learn their piece of music. Each group develops its own expectations for how they rehearse themselves and to what degree each member should participate. This in turn will develop bonds that could create a community of practice. Wenger (1998) comments that engaging in a community of practice “involves the whole person, both acting and knowing at once” (p. 47-48). Furthermore, Wenger and colleagues suggest that “knowing involves all active parties” (Wenger, 1998, p. 3), which alludes to the necessity of developing an intersubjective knowledge to form a community (Wenger, McDermott, & Snyder, 2002).

Though the trombones all aided in their group’s development of intersubjective knowledge, each member contributed in different ways. This resonates with Wenger, McDermott, and Snyder (2002), who note that communities of practice “invite different levels of participation,” “focus on value [for the participants],” “combine familiarity and excitement,” and “create a rhythm,” for task completion (p. 51). They later define levels of engagement for members of a community of practice. A “core” member actively engages in the discussions and inner workings of the community; “active” members “participate occasionally...but without the regularity or intensity of the core [members];” “peripheral members,” who seldom participate in the full group and choose to “keep to the sidelines, watching the interactions of core and active members...they gain their own insights from the [community] discussions and put them to good use” (p. 56). They also discuss a fourth level of participation, “outsider,” but this refers to those interested in but not directly involved with a community of practice (Wenger, McDermott, & Snyder,

2002, p. 56). In the following sections, I will connect the participants of the trombone section to this model of community participation.⁵

Rene. Though Rene was never named the leader of the group, she acted as the de facto leader and thus its core member. This resonates with her day-to-day interactions as a student in my band class. She was always very dedicated to her teams at school and known to become absorbed in her musical challenges until she was successful. With these qualities, she was able to lead the trombone rehearsals effectively and lead the others into the Zone of Proximal Development as they encountered challenges.

Dillon and Peter. Dillon and Peter were both active members of the ensemble. They participated occasionally, usually complimenting Rene as she led the group narrative, or at times supporting Rene when she needed assistance, such as when Dillon worked to scaffold Matt's understanding:

Matt has admitted that a spot with sixteenth notes is troubling for him. He points to the area in his music. Rene watched her part during this time, looking for where Matt is talking but she has her body turned away from him for this. When he is done talking, she tries to play Matt's part, which takes several attempts to play cleanly.

Rene: Oh, OK.

Dillon also plays the part that Matt is struggling with. I can hear that it is a rhythmically active part.

Rene: Why don't we just move him to fourth part and move on?

Dillon offers a more constructive approach.

Dillon: How about for now you just play those as one eighth note?

⁵ I must note that there were several participant groups active in this study. The members of each group took on the roles as described in this section in a manner similar to the trombones.

Dillon points to Matt's music to show him what notes to play. Instead of four sixteenth notes in a row, Dillon is recommending playing every first and third note of the passage.

Peter was also active several times in this study, usually in the form of an assistant taskmaster to Rene, either by reinforcing her rehearsal strategies as in the first vignette or by aiding in keeping the group running on time:

Rene: That beginning is tricky but not very fast [she demonstrates her line to them]. That's kind of how it goes. Do you want to try it again?

Dillon: Let's do the whole thing

Peter: We should do the opening section again.

The others nod. Rene counts them off, this time much stronger. The piece is rhythmically clearer.

Rene: Okay, the harmonies sound great. At least you guys are getting the key. That's pretty good. I think the rhythms are getting a little better too.

The group nods and add in their quips of agreement.

Rene asks if the group wants to rehearse at measure nine. Peter suggests pushing forward.

Peter: I say we just sight read through it and if we need to go back.

Here are three examples from above of Peter acting as taskmaster for the group:

- 1) Rene asks if the group wants to rehearse at measure nine. Peter suggests pushing forward.

Peter: I say we just sight read through it and if we need to go back

- 2) Peter: *Come on Matt, play with it on, it doesn't matter.*

- 3) Peter expresses to Matt that they are wasting time.

Peter: We're going to run out of time. We have ten minutes left, so please just play.

Both Dillon and Peter played an important role in the functionality of their group. As active participants, they participated in the rehearsals, but only shared their thoughts and expressed their opinions to aid in maintaining the intensity of the rehearsal that Rene was leading.

Noel and Matt. Noel and Matt were the most quiet members of the group. Compared to Dillon, Peter, and Rene, they said the least in their ensemble rehearsals. This does not mean that they had little to contribute to the overall activity of their ensemble. Noel overcame his initial trepidation and social anxiety to help the group by volunteering to play a certain part:

Noel: Rene, do you want me to learn the third part, just in case?

Later, he exposes his own deficiencies to gain help learning his part:

Noel: I think I could have a more confident trombone player play the fourth line to see if there's something that I can fix.

Though Noel made small requests, his volunteering to help learn the third part and asking for help with the fourth line of his music helped develop a social openness within the ensemble. Discussions that followed those from these vignettes were regularly back and forth, courteous, and professional between all members.⁶

Though Matt struggled to learn his part during his vignette, his courage to speak up in rehearsal helped to activate Dillon's scaffolding abilities:

Matt: Sorry, it's just the sixteenth notes at the bottom are messing me up.

Dillon: What if we clap the beat?

⁶ Though always reserved in speaking, Noel's thoughtfulness and musical resolve was rewarded by the greater band program, who voted for him to be drum major for several marching band seasons.

Later, he catalyzed Dillon again:

Dillon: How about for now you just play those as one eighth note?

Noel and Matt's actions as peripheral members of the ensemble were valuable for developing the vitality of the group. Noel was able to use this time as a safe opportunity to grow his voice as a young learner. Matt created several moments for the other members to develop scaffolding solutions that, after several more rehearsals, helped him learn and execute his part with success. Both assisted in helping their group enter the Zone of Proximal Development to negotiate the meaning (Wenger, 1998) of their roles in the ensemble and as music learners. Through these actions, they grew their musical agency, which developed their legitimacy as participants within this community of practice (Lave & Wenger, 1991; Wenger, 1998; Wenger, McDermott, & Snyder, 2002)

Dillon and Noel also aided in developing the intersubjective culture of their ensemble. Participation in a community of practice is dependent on mutual engagement of members and relations among members (Wenger, 1998). Dillon and Noel's aforementioned actions helped to develop not only the group's benevolence, or "openness for communication [and] common ground" (Rogoff, 1990, p. 201), but also (in the case of Matt) their tolerance of actions that aid or slow the learning of the group (Wenger, 1998).

Knowledge Transformation: Participation and Reification

The negotiation and sharing of knowledge within a community of practice aids in developing a shared repertoire of traits and skills within that community (Kenny, 2016; Rogoff, 1990; Wenger, 1998; Wenger, McDermott & Snyder, 2002). These communities place meaning on their product and processes, which develop their communal bonds.

Thus, communities of practice are communities of shared intersubjectivity. Wenger (1998) describes meaning-making as a process of negotiation through “participation and reification” (p. 52).

For Wenger (1998), participation is a process of taking part in an activity with others. Reification is the use of our intersubjective knowledge while in the Zone of Proximal Development to help make “the abstract tangible” (Davis, 2008) and provide a “shortcut to communication” (Wenger, 1998, p. 59). Reification is a “process [which] creates a tangible ‘thing’ that enables us to give form and shape to an abstract idea” (Davis, 2008, p. 323) and offers a “doorway in” for more learners to grasp the learning challenge (Wiggins, 2015, p. 35). Wenger relates reification to speech idioms. In his text (Wenger, 1998), he uses an example from an everyday conversation to show how we reify text and language in order to perceive the world: “democracy took a blow during a military coup” (p. 59). Democracy was not physically hurt, but through this statement, we come to understand that its tenets were severely tested in a negative way.

In the Western tradition, music reading and performing require the musician to read printed notation and transform those symbols into sounds through processing in the brain and then performing with the body, voice, or instrument (Elliott & Silverman, 2015). When related to music performance, Wenger’s concept of reification is the process through which musicians interact with and interpret the musical notation to lead to a successful performance. It is the taking of abstract thinking and likening it to current knowledge to bring the abstraction to life.

The trombone section employed the use of reification in several ways to help the musicians develop their group understanding of the piece. These modes of reification

were sizzling (such as during the initial rehearsal), singing (such as Dillon and Rene singing their parts for understanding in the initial rehearsal and Rene singing Noel's part in his vignette), and self-study with group share-outs. All of these reification methods could have assisted in helping each member of the ensemble enter the Zone of Proximal Development to refine their intersubjectivity to cohesive, exacting performance because they offered opportunities to bridge the gap between abstract thinking and concrete doing.

In the next section, I will discuss what seemed to be instances of flow within the trombone section, which could affirm the development of intersubjective knowledge within the group and the strengthening of their group into a community of practice.

Flowing in the Zone

As noted in chapter three, flow is an optimal state in which a person's ability to understand and perform is stretched by new challenges that are closely matched to their current level of competence (Csikszentmihalyi, 1990/2008; Csikszentmihalyi, 1996). Csikszentmihalyi (1996) characterizes flow as an enjoyable experience with several elements: clear goals, immediate feedback for one's actions, a balance between challenges and skills, actions and awareness are merged, distractions are unnoticed, there is no fear of failure, "self-consciousness disappears," the sense of time becomes distorted, and the activity becomes "autotelic" or has an end-goal in itself (pp. 111-113). The experience has a novelty to it and garners further interest, resonating with Bruner's (1966) credence that the most lasting learning experiences spark curiosity through fresh experiences that align directly with the content.

In my band classes, I have observed many students potentially enter flow states during rehearsals and performances. The students become hyper-focused on their content, as if fueled by their enjoyment of the music and its novel challenges. These students sometimes become upset when it is time for class to end, noting that they lost track of time and were sad that their musicking⁷ (Small, 1998) had to stop. The trombone section had several instances of flow in their rehearsals, which aligned with many of Csikszentmihalyi's (1990/2008, 1996) characterizations of the concept. I will discuss several of these instances in the following section.

A Frenzy of Learning

The trombones entered a collective flow state several times during their rehearsals. The first instances occurred during the first vignette, where Rene tried to show the group how to interpret the afterbeats in their music:

Rene demonstrates how to play the afterbeats with her instrument.

Rene: It goes like this.

She sings the rhythm using a “duh” syllable. Dillon accompanies her by singing the backbeats “and—and...” Noel is conducting time to himself as they do this. Without warning, Dillon and Matt start playing their part at variation 1.

I recorded the following in my field notes during this time:

Four separate things are happening:

Noel conducting the beat and singing his music to himself (maybe he learned conducting from his sister, who was a drum major for the band in a previous year).

Rene plays her part and then sings it to herself, moving her trombone slide as she does this.

⁷ Musicing” (Elliott & Silverman, 2015, p. 16) also refers to the act of making and experiencing music.

Dillon plays his part and then sings it, which accompanies Rene as she sings through her part.

Peter, much quieter than the others, studies his music with laser focus, patting the rhythm to his part on his leg like we have done in class.

Matt is silently moving his slide and studying his music.

I notice that there is no eye contact between the players at this moment, but rather a hyper fixation of their attention to their music, singing, patting, and slide-moving.

Eventually, they all begin playing their part for that section together, at the same tempo. There was no verbal discussion for this nor nonverbal signaling of when to begin, yet they found a moment of synergy.

After this moment of togetherness, the five players diverged yet again, not playing in tempo, but “woodshedding” their individual parts.

I am surprised that all the individual thinking and muddling that occurred turned into an unannounced run-down of the section that the group was struggling with.

Eventually, Rene stops everyone.

Rene: Okay, does everyone understand the syncopation in that spot?

I noted that this portion of the vignette occurred in about 50 seconds. It was an extremely powerful moment of self-learning that converged into group interaction and then diverged back out to the individuals for further musical refinement, highlighting several of Csikszentmihalyi’s (1990/2008, 1996) tenets of flow: clear goals (the students wanted to refine one specific part in their music), skill and challenge were balanced and actions and awareness became merged. Each student was able to enter their own Zone of Proximal Development to refine their individual interpretation of their part before merging these interpretations into a collective Zone during the unannounced tutti run-through.

In addition, the hyper fixation on practicing caused the rehearsal to become free of distractions; each of the participants was active in their own learning experience. Further supporting Csikszentmihalyi's (1990/2008, 1998/2013) tenets of flow, fear of failure appeared to be nonexistent (each musician was openly working on their music without fear of ridicule from their colleagues) and the end goal of refining this particular passage of music was present among all the musicians. These fifty seconds of perceived flow could have helped to create the initial bonds of trust for the trombone's community of practice because it not only allowed each member to develop a working stake in the ensemble, but also may have given Rene the extra confidence needed to open and close this moment of flow (*Okay, does everyone understand the syncopation in that spot?*) and solidify her voice as the leader of the community of practice.

Additional Moments of Flow

I observed several other potential instances of flow among the members of the trombone section. A second instance of flow may have occurred during Noel's vignette, where his fellow group members worked to learn his part. Dillon catalyzed the group's entrance and exit into the flow state:

Noel nods to Rene to signal that he needs help there.

During this time Matt is playing through Noel's part quietly, and Dillon is studying it with his eyes.

Dillon to Noel: I'm bad at sight-reading that low.

Peter: Do you want us to play the top part or the bottom part?

At this moment, the discussion has devolved into all-out self-practicing among Peter, Dillon, and Matt. They seemed to want to figure out Noel's part. Rene is looking at his part on her score, too, and singing through it.

During this time, Noel has listened to the others and has not played but he is observing the frenzy of interaction among his peers and listened to them work to learn his part.

Dillon: I say we do a run through before we run out of time.

This vignette further supports Csikszentmihalyi's (1990/2008, 1996, 1998/2013) tenets of flow, as stated above, and illustrates the power of novel challenge (in the form of Noel's music) in welcoming students into the learning space. At this moment, it was as though the challenge sucked the students out of the rehearsal room and into their Zones of Proximal Development, much like an electromagnet momentarily, but powerfully, attracts iron.

A final instance of flow occurred during Matt's vignette. Though Matt struggled to conceptualize his music during this moment, Rene entered a flow state while learning his part:

Dillon: What if we clap the beat?

The whole group claps tempo for Matt while he plays the part again. They do this several times. The first time they clap is a bit faster than Matt anticipated, so they slow it down for a second run. Matt's performance improves this time.

Rene plays the part to develop an understanding of it. She also sings it to herself, something that I have modeled and practiced in elementary and middle school band rehearsals, but not often at the high school level.

Rene: It's just because it's on the offbeat that it's difficult.

In this section, Rene alone entered a flow state, affirming several of Csikszentmihalyi's (1990/2008, 1998/2013) tenets of flow. She began with the clear goal of learning Matt's music; her skills matched the challenge of the piece, and her actions and awareness also matched, allowing her to draw a conclusion that supported why Matt was struggling with the music:

Rene: It's just because it's on the offbeat that it's difficult.

This event also became autotelic for Rene; her intrinsic motivation to learn the part and to be successful in helping her group mates learn it as well drove her to enter her Zone of Proximal Development, using the scaffolding techniques of self-practice and singing to reify her understanding of Matt's part.

In Closing

In the above sections, I described the themes that emerged from my study of the trombone section: the development of trust and risk-taking, the creation of intersubjective knowledge which aided in the development of the group into a Community of Practice, and several instances of flow during their rehearsals. In the Findings, I will discuss the implications for the field that have emerged from the analysis of the data.

CHAPTER FIVE FINDINGS AND IMPLICATIONS

Introduction

Over the course of this study and dissertation, I sought to gain an understanding of how my students learned music together in chamber ensembles using their own methods. As the study progressed, I learned that individual successes in peer collaborations helped to develop a student's individual agency as a music learner, which in turn helped to deepen the bonds between group members and solidify their functionality as a community of practice.

In this chapter, I will analyze the themes that emerged from the study. First, I will discuss how earning and developing trust among learners can foster entrance to the Zone of Proximal Development. From this, I will propose the notion of a *shared* Zone of Proximal Development within communities of practice and how it can foster learner growth. The process for learners to enter the shared Zone of Proximal Development is dependent upon building trust, entering an individual zone of Proximal Development, and developing intersubjective knowledge in a community of practice. Figure 1 illustrates that as trust forms between group members, they are able to enter into richer levels of interaction, first through entering their own individual Zones of Proximal Development, and later as a community of practice with its own shared Zone of Proximal Development that results from sharing and refining their intersubjective knowledge.

Secondly, I will explain how positive shifts in individual perezhivanie through successes in the Zone of Proximal Development can increase learner agency and a

willingness to explore future tasks with greater involvement, which may strengthen the bonds of a community of practice. At the conclusion of both sections, I will discuss the implications of these findings for the greater educational community.

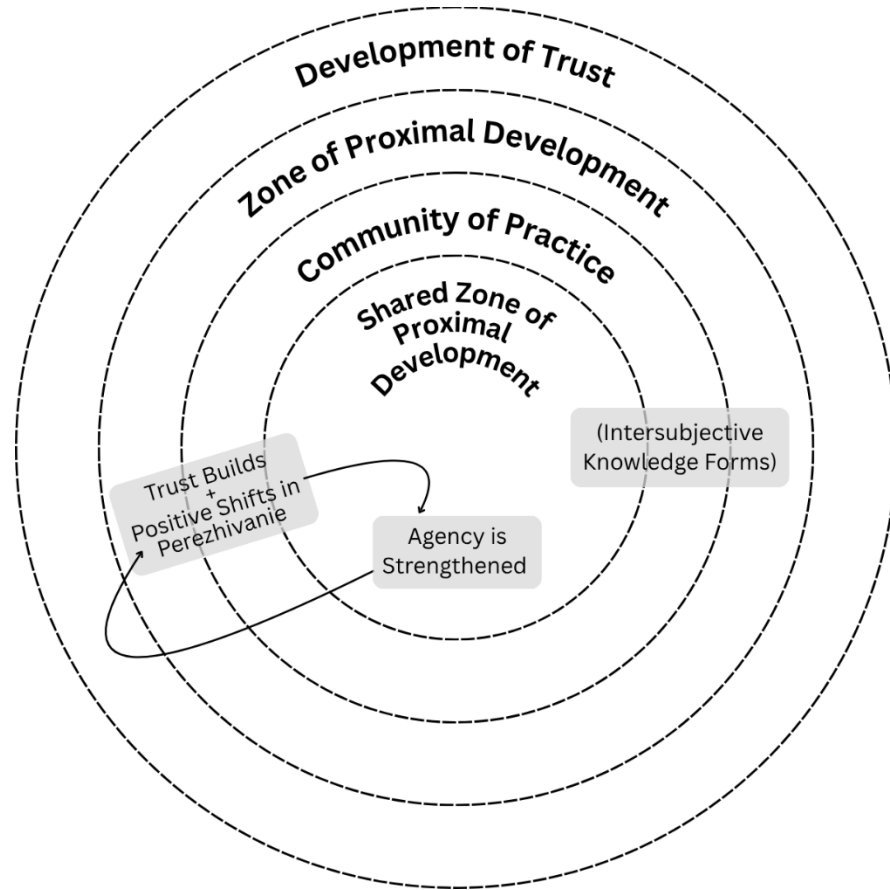


Figure 1. *The Recursive Nature of the Development of Trust, Formation of Communities of Practice, and Positive Shifts in Perezhivanie and Agency.*

As trust develops among group participants, they can enter their Zone of Proximal Development to develop the intersubjective knowledge necessary for forming a functional community of practice. As this intersubjectivity develops, group members may continue to develop and refine knowledge as a community of practice that can enter a

shared Zone of Proximal Development. Through each level, trust between group members can increase and individual agency can strengthen as successful or positive interactions occur. Thus, positive shifts in individual *perezhivanie* (over time) can assist group members in participating more fully in their community of practice and shared Zone of Proximal Development. This is a recursive process; as members build their trust for each other they may be able to more easily traverse from their own Zones of Proximal Development to the shared Zone of Proximal Development (via adopting the intersubjective knowledge of their peers).

Entrance to the Zone of Proximal Development is Dependent Upon Trust

As my students interacted together in their chamber music ensembles over the time of this study, I observed their reluctance to experiment with their musical challenges fade as they became more trusting of one another. Trust is “an assured reliance on the character, ability, strength, or truth of someone or something” (Merriam-Webster, 2026). Developing trust among individuals is a vulnerable act in learning scenarios, as learners may be operating on the “edge of incompetence” as they muddle through their task (Duke, 2012; Rogoff, 1990). This resonates with Duncan, Sganzerla, Kaltwasser, & Dziobek, (2025), who posit that trust between individuals is an expectation of reciprocity of actions for shared experiences. They share that

Trust can be defined as relying on the expectation that others will reciprocate and act in a trustworthy manner, leading to mutual benefits...Trust involves three components: the self, the partner[s], and the specific goal or expectations in a current situation, that is, ‘I trust you to do X.’ (Duncan, Sganzerla, Kaltwasser, & Dziobek, 2025, p. 2)

Once the bonds of trust are established in a learner group, participants allow themselves to enter the sometimes vulnerable learning headspace known as the Zone of

Proximal Development (Vygotsky, 1978). This occurred several times in my observations of the trombone ensemble. In the first vignette in Chapter Four, Rene embodied the spirit of trust as she took the initial risk of organizing the part assignments for the trombone players. As the other group participants allowed her to orchestrate their assignments, she exemplified several of the characteristics of trust that Merriam-Webster (2026) highlighted. First, she presented her individual character as one who cared about the group's success; secondly, she asserted her mental strength to them as she guided the part assignment. Over time, she illustrated her strength as leader, notably as she pulled the group out of their individual Zones of Proximal Development to resume their tutti rehearsal in the first vignette, and later in the "*Rene's Social Groundwork*" vignette. She also offered praise to the group at several intervals as they achieved successes in rehearsal.

Trust Allows for Guidance into the Zone of Proximal Development

Others in the trombone ensemble embodied the spirit of trust not as leaders, but by allowing themselves to be led into the Zone of Proximal Development. Most notably, in the "*Noel's Positive Shift in Perezhivanie*" section, Noel may have developed enough trust in his ensemble partners through their previous interactions that he willingly revealed his incompetence (Rogoff, 1990) to become more successful with his music. As he allowed his walls of vulnerability to fall away with his request for help, it was as though he held out a hand to be led into the Zone of Proximal Development:

Noel: I think I could have a more confident trombone player play the fourth line to see if there's something that I can fix.

From this statement, Noel was able to grow, and his perezhivanie strengthened for later musical experiences.

Matt also developed trust for his group members, which helped him enter the Zone of Proximal Development. While it is uncertain as to whether he entered the Zone of Proximal Development during his vignette, he trusted his group members enough to admit his incompetence (Rogoff, 1990):

Matt: I think measure seventeen to the end is going to be OK, but it's just the sixteenth notes right there, and right there [he gestures to his part for Dillon and Peter to see]. It's just that the sixteenth notes are really quick.

Matt's character history made it difficult for the others to find a doorway in (Wiggins, 2015) to his Zone of Proximal Development, but his vignette did open a doorway for the others to learn his part and try to help him. Dillon may have reinforced his trusting bonds with Matt by offering a constructive remark to scaffold his learning:

Dillon: How about for now you just play those as one eighth note?

By saying this, Dillon helped to diffuse a tense situation for everyone in the rehearsal; he offered a remedy for Matt's challenge, prevented Rene from making a negative comment about Matt's progress, and also gained social capital with Noel and Peter by showing them that he was committed to bolstering the success of everyone in their group, including Matt, further strengthening the bonds of trust between himself and the rest of the group.

The Trust Zone: A Shared Community of Shared Repertoire

Trust between learners is an integral component of entry into the Zone of Proximal Development. Without it, learners will be more reluctant to show their shortcomings to their peers. As the participants in my study developed their trust for one

another, their learning and social discourse became richer and the number of risks taken to learn their music increased greatly. Furthermore, the participants were often complimentary to one another when there was a learning victory, be it with smiles and head nods of affirmation:

Dillon: I say we do a run through before we run out of time.

A chorus of “Yeah’s” occurs. Noel nods in agreement.

There were many verbal affirmations, such as these that Rene so often gave to her peers:

Rene: Ok, that sounded a lot better than last time!

--

Rene: Okay, the harmonies sound great. At least you guys are getting the key. That’s pretty good. I think the rhythms are getting a little better, too.

The group nods and add in their quips of agreement.

Through my observations of the trombone section as they rehearsed their music for this study and affirmed their commitment to each other, it became clear to me that learning is socially constructed through interactions with peers (Brooks & Brooks, 1999; Bruner, 1990; Dewey, 1899/1991, 1916/2018; Vygotsky, 1978; Wiggins, 2015). Furthermore, communities of practice (Lave & Wenger, 1991; Wenger, 1998; Wenger, McDermott, & Snyder, 2002) are dependent upon the development of a shared repertoire, or intersubjective knowledge (Rogoff, 1990; Trevarthen, 1980) to become successful in navigating the challenges of their tasks. For these young learners, their shared repertoire consisted of the norms they developed in rehearsal. For instance, self-practicing was allowed as others talked, but when one person addressed the whole group, they ceased their individual operations to give focus to the speaker. Multiple modes of music

representation were also part of their shared repertoire, including singing parts, silently-sliding their trombone slides through sections of music, rhythm sizzling, patting rhythms, and rhythmic reduction.

The shared repertoire of every music ensemble and community of practice will be different, but the fundamental element for a successful group is the same: each member tacitly (Polanyi, 1966) agrees to a shared way of being together through their thoughts and actions. As they build trust, they develop these tacit bonds from within the Zone of Proximal Development.

A Shared Zone of Proximal Development

As noted earlier throughout this report, the participants in my study entered their individual Zones of Proximal Development to interact with the learning material with the assistance of a more knowledgeable peer. Historically, the Zone of Proximal Development has been viewed as an individual space for learners (Vygotsky, 1978), but I posit that in many instances, learners can enter a *shared* Zone of Proximal Development as they muddle (Duke, 2012) through new content together.

First, it is necessary to note that because learning is a social event (Brooks & Brooks, 1999; Bruner, 1990; Dewey, 1899/1991, 1916/2018; Vygotsky, 1978; Wiggins, 2015), a person entering the Zone of Proximal Development must welcome the help of at least one other person, who uses their existing knowledge to scaffold (Wood, Bruner, & Ross, 1976) the other's skill and understanding of the problem at hand. In doing this, both the learner and the scaffolder negotiate their understandings of the concept with the other until a consensus of understanding (a new, intersubjective understanding) is reached.

I suggest that this same event can also occur amongst groups of learners navigating a shared task, thus supporting the notion of a shared Zone of Proximal Development. A first instance of this occurred during the vignette “*Risks from Day One: The Trombone Ensemble*” when Rene created a doorway into the learning challenge of playing the afterbeats in the first variation of their music:

Rene demonstrates how to play the afterbeats with her instrument.

Rene: It goes like this.

She sings the rhythm using a “duh” syllable. Dillon accompanies her by singing the backbeats “and—and...” Noel is conducting time to himself as they do this. Without warning, Dillon and Matt start playing their part at variation 1. The others join. It falls apart, they work through their parts alone. I am surprised that all of the individual thinking and muddling that occurred turned into an unannounced run-down of the section with which the group was struggling.

Eventually, Rene stops everyone.

Rene: Okay, does everyone understand the syncopation in that spot?

They nod to acknowledge their understanding. While this is happening, Peter is tapping his leg looking at his part. There is something on the page that caught his eye. Rene calls out an area to start and counts the group off.

Rene: Ok, that sounded a lot better than last time!

Several different yet related phenomena occurred in this vignette. First, an initial atmosphere of trust had been tacitly established between the musicians which allowed them to openly practice the music together. Secondly, as Rene began to sing, Dillon’s vocal accompaniment and Noel’s conducting demonstrated their current understandings of the piece; namely, Dillon understood his part well enough within the context of Rene’s to couple his conception of it with her singing, and Noel and Peter were able to identify and embody the tempo of the piece as this occurred. From this, Dillon and Matt were

drawn into the learning Zone that Rene had opened, practicing their parts without any verbal announcement of wanting to do so. It was as though they had been drawn into a collective Zone of Proximal Development like a water vortex that pulls debris into itself. Through this, their bonds of trust tacitly strengthened as they exposed their vulnerabilities in the form of overt practice in front of each other in order to develop an agreed-upon repertoire (Trevvarthen, 1980; Rogoff, 1990) for the interpretation of this section of their music.

A second example supporting the potential for a shared Zone of Proximal Development occurred in Matt's vignette, "*Matt's Negative Experience.*" As Matt struggled to learn his content, the others entered a shared Zone of Proximal Development in order to understand his challenge and, from this, created scaffolding opportunities:

Dillon: What if we clap the beat?

The whole group claps in tempo for Matt while he plays the part again. They do this several times. The first time they clap is a bit faster than Matt anticipated, so they slow it down for a second run. Matt's performance improves this time.

Rene plays the part to develop an understanding of it. She also sings it to herself.

Rene: It's just because it's on the offbeat that it's difficult.

Dillon is playing the rhythm of Matt's part slowly as Rene says this. She gestures to Matt to perform the part again, but he still struggles with the part. Dillon and Rene clap the tempo while he tries to do this.

The tutti clapping, musical demonstration from Rene, and slow demonstration of the part by Dillon were very much examples of the students navigating the challenge of the part for their own shared understanding as much as they were an attempt to scaffold Matt to the next level of understanding.

A third example of learners sharing a Zone of Proximal Development occurred in “Noel’s Positive Shift in *Perezhivanie*” where Noel observed the other members of the ensemble enter the shared Zone to refine their understanding of his part to scaffold him later:

Rene: Do you want us to play at measure 9?

Noel: I don’t know, just wherever, because it’s difficult.

Rene: Do you want us to play at measure 9 to see if I can play it? Or Dillon?

Noel nods to Rene to signal that he needs help there.

During this time Matt is playing through Noel’s part quietly, and Dillon is studying it with his eyes.

Dillon to Noel: I’m bad at sight-reading that low.

Peter: Do you want us to play the top part or the bottom part?

At this moment, the discussion has devolved into all-out self-practicing among Peter, Dillon, and Matt. They seemed to want to figure out Noel’s part. Rene is looking at his part on her score, too, and singing through it.

During this time, Noel has listened to the others and has not played, but he is observing the frenzy of interaction among his peers and listening to them work to learn his part.

In the previous chapter, it was noted that Noel built his understanding through asymmetrical intersubjectivity (Rogoff, 1990), but the others shared enough of their current musical repertoire to navigate his challenge together. Once Noel identified the area of issue (via nodding when asked if he was struggling with measure nine), the others entered a shared Zone of Proximal Development through playing and singing to interpret his musical challenge. Noel, too, may have entered the shared Zone as an observer on the periphery, and refined his musical skill through observation. This resonates with Lave

and Wenger (1991) and Wenger, McDermott, and Snyder's (2002) positions that participants in communities can interact from the periphery in order to build their knowledge.

The Shared Zone of Proximal Development: A Potential Flow Zone

In each of the vignettes discussed in Chapter Four, the participants of my study displayed a diligence to not only help each other learn their music, but also to understand their own part within the context of the ensemble. This was evidenced in multiple ways, most notably through visual inspection and comparison of parts in rehearsal and through the accompaniment of another learner's part in multiple forms of representation, such as singing, patting, and sizzling, as another student worked through their challenge. At other times, the full ensemble seamlessly shifted from discussion of musical and learning issues into spontaneous self-practicing that quickly reconverged into a tutti rehearsal.

These concurrent moments of sharing, comparing, and evaluating their group learning further suggest the existence of a shared Zone of Proximal Development. Within this shared Zone, learners are participating in the learning scenario at levels that match their ability levels. For the student being scaffolded into the shared Zone, they may dabble in the learning at the periphery (Rogoff, 1990; Lave & Wenger, 1991) through observation and mimicry of the others. For the more knowledgeable learners in the shared Zone, they may be experiencing moments of flow as they apply their knowledge to the new but similar material in their partner's learning. Evidence for this was present in several of the vignettes as noted in the "Flowing in the Zone" section of Chapter Four.

The Shared Zone of Proximal Development: An Incubator for All to Grow

Social constructivists maintain that learning is not an individual task but a shared process reliant on scaffolding new concepts upon previous experiences in order to refine and reinforce existing conceptual knowledge (Bruner, 1960/1977). My proposal of a shared Zone of Proximal Development resonates with this position and widens the scope of the Zone of Proximal Development to include multiple learners at multiple levels refining their individual understandings and shared intersubjectivity in tandem. It is a process that requires authentic, hands-on interaction with the study materials and partners to inform and refine their knowledge (Bruner, 1960/1977; Dewey, 1899/1991; Rogoff, 1990, Wiggins, 2015). Blair (2009d) refers to these actions as *informed doing* which

Results when students are personally engaged with music, solving musical problems. Rather than merely following directions, students are being musical—growing as *musicians*. In learning situations, what students do informs their thinking, and what students think about informs their doing. (p. 43)

Implications

My proposal of a shared Zone of Proximal Development suggests that all learners, not just musicians in chamber music ensembles, could potentially build, refine, and reinforce new concepts when working in tandem with others on a common task. It acts as an incubator within which all can grow: learners with conceptual gaps enter the zone with more knowledgeable colleagues who can share their knowledge using different modes of representation that are meaningful to them. From this, a spectrum of learning and sharing can occur that not only provides a doorway into (Wiggins, 2015) the content for the least experienced learners, but reinforces and reifies existing concepts among the experienced learners. As this is a process of social interaction, the interplay of knowledge sharing

between members of the zone could develop a shared intersubjective understanding for the concept and group relations, which may strengthen every learner's understanding of their task and also develop valuable interaction skills which may lead to the development of—or strengthen—a burgeoning community of practice (Wenger, 1998; Wenger, McDermott, & Snyder, 2002).

While the notion of a shared Zone of Proximal Development could greatly assist underperforming learners in refining their understanding of a concept, it could also serve as an opportunity for “stronger” learners to shine among others while refining their knowledge of the content demonstration and reification, potentially leading to opportunities of flow for those learners. Because of this, I encourage learning facilitators in leadership positions among learners with diverse understandings to consider how learning groups are formed in their midst. I propose that learning groups with participants of mixed levels of skill and understanding stand to benefit from interaction together as much as or more than groups with members of similar proficiencies. My study participants, Dillon, Matt, Noel, Peter, and Rene, each learned using vastly different tools they had refined through their prior experiences. As they shared their learning visibly (Ritchhart, Church, & Morrison, 2011) with one another, they deepened their own individual understandings of the learning concept while drawing others into the arms of intersubjective understanding. My spouse summarized these thoughts succinctly: “I do my best learning when I am teaching others.”

Building Agency Through Trust

As learners build trust while navigating challenges in the shared Zone of Proximal Development, their individual perezhivanie may be strengthened as they experience

successes with their challenges. From these experiences, learners may be more inclined to take risks in similar situations when the opportunity arises. With regard to music learners, successful navigation of challenges in small ensemble work may assist in increasing individual learner agency in both the small ensemble and the large ensemble (such as band and orchestra). I propose that this could be a recursive process: as students experience success in group-learning settings, their agency to navigate similar and increasingly challenging situations could increase. Figure 1 above illustrates this recursive process.

The Trombone Section: A Community of Trust and Hope

As time passed during this study, it became obvious that the members of the trombone section were committed to guaranteeing their individual success and the success of their group. In short, they trusted one another to do what was needed to complete their music learning challenges. Each rehearsal I observed illustrated their willingness to help one another understand the content of their musical challenge. The first vignette, “*Risk from Day One: The Trombone Ensemble*” illustrated the groundwork of trust laid by the group. They allowed Rene to assign parts to the group in a way that she thought would bring the greatest successes to each member and thus the group as a whole:

Rene: So, first I think we are going to have to figure out what parts we play. Are we going to have someone do the fourth part?

She looks around and eyes Noel.

Rene: Could you do that part alone?

Noel: Sure, I have a lot of experience in low trombone.

--

Rene: We're going to need two on second and one on third. They have to be strong.

As she says this, she is writing on the part assignment worksheet I gave her group before they convened. Matt volunteers for third part and Dillon takes second.

Rene to Matt: You have to be able to play it out and you have to be able to play it loud, and I don't want someone who is not going to do that. Do you think you can play it loud?

Matt nods, avoiding eye contact. The group marks what part they have to play on the ensemble score.

Noel: Rene, do you want me to learn the third part, just in case?

He gestures outwardly, as if Matt will not be able to handle it. She agrees.

The short dialogue between Noel and Rene illustrates both Noel's budding commitment to pleasing Rene as the unofficial group leader, and also illustrates Rene laying down the foundations of trust among her group members, showing them her expectations of success and hope for collaboration.

To trust is to show your vulnerabilities and hope you will be respected in the learning environment (van Manen, 1991). Van Manen (1991) comments on the relationship between hope and trust in the learning setting, which he later develops into the idea of *trustful hope*:

[Hope] refers to that which gives us patience and tolerance, belief and trust in the possibilities of our [learners]. Children who experience our trust are thereby encouraged to have trust in themselves. Trust enables!...This trust enables our child to trust his or her own possibilities and development. Trustful hope is our confidence that a child will show us how his or her life is to be lived, no matter how many disappointments may have tested our confidence. (p. 68)

Trustful hope was illustrated by Matt and Noel in their vignettes, "*Noel's Positive Shift in Perezhivanie*" and "*Matt's Negative Experience*." In both vignettes, Noel and

Matt had to admit their learning deficiencies to the group in order to be scaffolded into understanding by their peers. They trusted their group mates to help them with their time of need, with the faith (or hope) that they would be respected in the process. Noel overcame his immense shyness to ask for help, which his group members interpreted as a serious call for assistance.

Matt, too, trusted his group members to help him, even though their feelings toward him were less welcoming than those toward Noel, given his history of interaction with the group. Nonetheless, the group honored his request for help, though their efforts in the shared Zone of Proximal Development were unable to scaffold him into understanding at that particular moment.⁸ In subsequent group rehearsals, both Noel and Matt exhibited greater interest in assisting and supporting their peers with learning challenges because they had received helpful assistance, which enhanced their perezhivanie for music learning and strengthened their learner agency.

As Perezhivanie Strengthens, Group Bonds Could Strengthen

Positive shifts in the perezhivanie of the members could promote greater group agency, strengthening the bonds of a burgeoning community of practice. Indeed, the opposite could also occur; failures to develop trust could have negative impact on entrance to the shared Zone of Proximal Development, which could lead to disengagement among members. Figure 2 and Figure 3 below illustrate the potential outcomes. As stated earlier, it is within the shared Zone of Proximal Development that

⁸ As I reviewed the rehearsal videos of the trombone section, I intervened as teacher-researcher (Kincheloe, 2002, 2012) to ensure that Matt's group mates treated him and every member of their group with respect even if the rehearsal situation became frustrating, illustrating to them my use of trustful hope in my classroom.

intersubjective knowledge is formed and shared, and flow may occur for stronger participants. Some members of a group may shift in and out of flow as their challenges shift over time. From these interactions, members could experience an increase in agency to do similar tasks. Thus, I posit that individual agency builds as learners interact within the shared Zone of Proximal Development. It acts as a safe place for learners to demonstrate their understandings to one another, muddle with the content, and test potential solutions for their learning challenges using the shared repertoire that they have tacitly agreed upon through their past interactions.

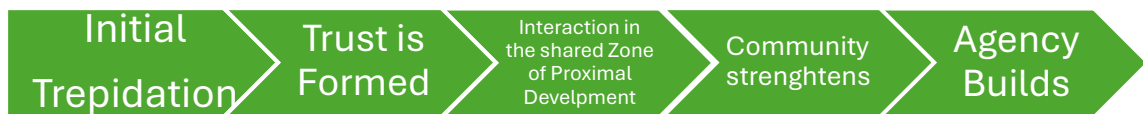


Figure 2: *Community strengthens as trust is formed.*

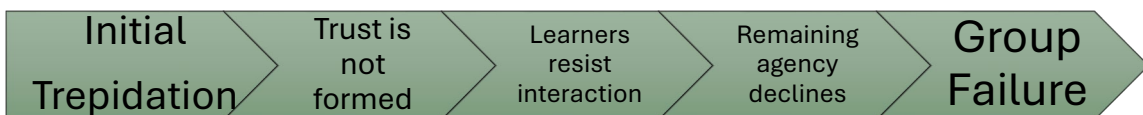


Figure 3: *Group failure is a direct result of a lack of trust.*

In Figure 2, I note that *communities* strengthen as trust is formed. Figure 3 does not refer to a community but rather to a *group*; learning communities are formed through development of trust among groups of people within the shared Zone of Proximal Development. Thus, lack of trust and interaction between members restrains a group from becoming a community of practice. This phenomenon does not occur solely among groups of learners who do not “get along” in the classic sense of peer to peer collegiality,

but also within groups who are simply unable to form trusting bonds that allow them to move past their initial trepidation for working together, which could reduce the richness of their interactions.

Implications for Teachers

It is essential that learning facilitators find opportunities to support individual agency among every learner. Refinement and development of learner agency is dependent on the trust relationships that learners build in groups, the classroom, and the greater learning community. Learning facilitators at all levels have a responsibility to develop trustful hope (van Manen, 1991) within their students to help stimulate a curiosity for learning and an interest in collaborative learning. I recommend that learning facilitators introduce collaborative group assignments early on in their pedagogy to help spark this interest.

Musicking has historically been a shared process among people (Small, 1998) but my experiences in classrooms have shown me that it is very easy for classroom music teachers to avoid creating opportunities for young musicians to muddle in the content because of time constraints and mistrust of learners using their time wisely. Because of this, I have observed many musicians who are not conversant in the content area; they understand an aspect of music that they have learned about or that resonates with them but are unable to share those thoughts musically with others. They lack the tools to share in their understanding of their art and may become discouraged when sharing occurs unsuccessfully.

Music teachers at primary and secondary levels should take great care to avoid this outcome. Large ensemble directors (such as leaders of bands, orchestras, and choirs)

can often fall into the pit of teaching everything from the podium, leaving little opportunity for interaction and knowledge refinement among peers. This resonates with Shively (2004), who warned of this two decades ago:

In the face of tradition, our goal should be to create ensemble classrooms that allow for a more highly democratized learning environment. The belief system that is reflected in both the approach that teacher-conductors take with their ensembles and the kinds of activities in which they engage the learners in their classrooms is an incredibly powerful force toward the development of potentially richer learning environments. Toward this goal, we need to consider the sustaining purpose of our efforts in these classrooms. Performance will remain the foundational experience in these classrooms, yet we must move toward a reconstituted notion of the goals of performance-based music education and the actions in which teachers and students engage themselves toward the fulfillment of these goals.

This focus on performance should lead to exploration and experimentation with music rather than mere replication. Of further concern is replication based on musical decisions that are transmitted from the teacher-conductor to the students in the ensemble. The ensemble classroom should be thought of as a musical laboratory rather than a musical factory. (p. 181)

Creating small group learning challenges of graduated difficulty for learners to muddle safely in the shared Zone of Proximal Development will function as a musical laboratory for peer exploration.

Examples of Student-Driven Collaborative Learning

In my school band program, I begin with beginning band students paired in groups of two to learn a unison study together. Later, we learn our first duet as a class, one part at a time as a full class. After this the students then work alone in pairs scaffold their understandings and refine the piece to their own musical standards. For my learners, this creates a doorway in (Wiggins, 2015) to develop small ensemble skills in the large ensemble classroom while also building valuable social interaction skills and trust among my students. Small successes can fuel student agency and interest in greater musical

challenges, and failure can be reflected upon and scaffolded by me to help inspire hope for a better experience in the next learning challenge. Later, the skills these students develop could be transferred into student-led small musical ensembles with a greater number of participants and more learning challenges, such as the chamber music unit that my high school students participate in yearly.

The Future Depends on Working Together

My recommendation for how to catalyze and develop transferable musical skills through interaction in small ensembles is just one of many ways that educators may use to support individual student agency in the music classroom. Local customs, culture, and history of interaction in the learning environment may affect how these skills are refined and developed. It is important that learning facilitators in every discipline create authentic learning opportunities that develop peer-to-peer interaction.

Anecdotally, we all experience that today's world is plagued by disagreement and disengagement; small screens and easily searchable web databases make finding answers to many of our questions very easy, but this comes at a price. Social interaction online is often plagued by highlighting negative issues and those who post online can voice their views anonymously to avoid confrontation. High school and university programs routinely use online learning platforms that employ message-board style modes of communication to share learning. Though these are moderated at a greater level than public social media forums, it can be more difficult to develop bonds of trust among learners and teach social interaction skills because they separate peers with walls, screens, and wires. I posit that the shared Zone of Proximal Development is best entered

into *in person* to genuinely develop intersubjective knowledge and develop lasting communities of practice.

In Closing

Students deserve opportunities to develop rich understandings in every discipline they study. This learning should be authentic to the discipline of study and be representative of what professionals in these settings do (Bruner, 1960; Dewey 1899/1991). Because of this, it is imperative for teachers to develop opportunities for students to muddle in learning challenges that are authentic to their discipline alongside trusted peers. For instrumental music learners, interactions in chamber music ensembles can help to develop an intersubjective knowledge of music that can be transferred to the greater music community and also help to develop their individual musical agency. This shared growth may strengthen the bonds of group participants into a functional community of practice and inspire music learning and interaction at higher levels in future scenarios.

But before all of this, it takes an element of trust between peers to allow for such rich interactions to occur. Each group member must feel comfortable and ready to let down their guard to hear their own Rene say, “It goes like this,” to open the door for greater understanding of their learning content.

APPENDIX A

INSTITUTIONAL REVIEW BOARD APPROVAL LETTER



Institutional Review Board

Date: September 1, 2022

Study #: IRB-FY2023-2

Study Title: Scaffolding knowledge and building communities through small group musical ensembles

Submission Type: Initial

IRB Decision: Exempt

Research Team:

Kevin Czarnik

Deborah VanderLinde

Based on applicable federal regulations, the above referenced study has been determined to be Exempt, with the following categories:

Category 1. Research, conducted in established or commonly accepted educational settings, that specifically involves normal educational practices that are not likely to adversely impact students' opportunity to learn required educational content or the assessment of educators who provide instruction. This includes most research on regular and special education instructional strategies, and research on the effectiveness of or the comparison among instructional techniques, curricula, or classroom management methods.

Letter and Consent Document:

This letter along with the two IRB approved and date-stamped consent documents, assent and parental permission, can be found in Cayuse in the Submission Details page under Letters and Attachments, respectively. Please make sure to use the most recent IRB approved version of the consent forms in consenting participants.

Permission from Research Sites:

Please note the following:

- This IRB exemption determination letter means that this research has met one or more of the federal criteria for exemption per 45 CFR 46.104- Exempt Research.
- Before the research is initiated, permission to conduct research at a given site must be obtained from all research locations listed in the IRB submission. You must keep copies of all such permission letters for your files.
- It is the responsibility of each researcher to follow all applicable policies and procedures of any outside institution where the research will be conducted.

Modifications:

Any changes to this exempt project must be reviewed by the IRB prior to initiation by submitting a MODIFICATION request. Do not collect data while the changes are being reviewed. Data collected during this time cannot be used in research.

Record Retention:

Exempt projects will be retained by the IRB office for three years after the last action on the project.

You are approved to start the research. Please retain a copy of this notification for your records.

If you have any questions, please contact the IRB office.

Thank you.

The Oakland University IRB

APPENDIX B

SAMPLE PERMISSION LETTER

Parental Permission to Participate in Research

Scaffolding knowledge and building communities through small group musical ensembles

Introduction

You are being asked to give permission for your child to participate in a research study that is being done by Kevin Czarnik, under the direction of Deborah VanderLinde (Interim Director of the School of Music, Theatre and Dance and Associate Dean School of Music, Theatre and Dance), the faculty advisor for this project.

Your decision to give permission for your child to participate in this study is voluntary. Your child does not have to be in this study. Your decision will not affect your or your child's present or future relationship with Oakland University, the researcher, the Oakland University School of Music, Theatre and Dance, or Croswell-Lexington High School. Your decision about participation will not affect your grades or student status.

If you are a student or employee at Oakland University, your decision about your child's participation will not affect your grades or employment status.

What is the purpose of this study?

The purposes of this research study are to:

1. Observe how students interact in small group musical settings.
2. Study how they share musical information with one another.
3. Use the findings to inform the greater musical community of the benefits of forming small group musical ensembles in large ensemble classrooms.

Who can participate in this study?

Your child is being asked to participate in the study because your child is enrolled in the Croswell-Lexington High School Band.

How long will my child be in the study?

The estimated total time for the participants to complete the activities that are being researched is about 3-4 hours consisting of 6-8 half hour sessions spread over 2-3 months. Different groups will be studied at different times, so the entire research project will run from September 2022- June 2023.

Participation in this study will not require extra time beyond the normal class period.

Where will this study take place?

This study will take place at Croswell-Lexington High School.

What will my child be asked to do?

Your child will be asked to

- Participate in student-led small ensembles as would normally occur during class time.

- These will be audio or video recorded to observe student interaction. Students who do not receive parental consent will not be recorded.
- Complete worksheets related to their participation in small ensembles.
 - Pseudonyms will be used in the research to protect student identities.
- Participate in short interviews regarding their experiences in the small ensemble.
 - This will occur during normal class times.
 - Pseudonyms will be used in the research to protect student identities.

Are there any risks to my child?

Research studies may involve different kinds and levels of risks or discomforts. These could be physical, emotional, social, economic or legal risks. For this study, the potential risks and discomforts that we know about are none as the students are completing the assignments as a part of the class, not the research.

With many research studies, there is a risk that someone who is not part of this research may accidentally see your child's personal information. Safeguards will be in place to minimize this risk by keeping your research records as confidential as possible. When the results of this research are published or presented at conferences, no information will be included that personally identifies your child.

Audio and video recordings will be stored securely and destroyed three years after the conclusion of this study.

In recorded student interviews, only first names will be used. If information from the study is used in published or presented research, pseudonyms will be used to protect student identities. There will be no group interview sessions.

Are there any benefits to my child?

There are no direct benefits.

Will I/my child receive anything for participating?

You/your child will not receive anything for participating in this study.

Who could see my child's information?

Your child's research records may be shared and reviewed by the following groups:

- Representatives of the Oakland University Institutional Review Board and/or other regulatory compliance staff, whose job is to protect people who are in research studies.
- Regulatory authorities who oversee research (Office for Human Research Protections, or other federal, state, or international regulatory agencies).
- Information about your child participation in the research may be shared with protective services/agencies as required by law.

De-identified data may be used or distributed to another investigator for future research use without additional permission from you.

When the results of this research are published or discussed in conferences, no information will be included that personally identifies your child.

What if I/my child want to stop participating in this study?

If you/your child want to stop participating in this study, they can inform Kevin Czarnik at any time.

Who do I contact if I have questions about this study?

Kevin Czarnik, Principal Investigator. kczarnik@oakland.edu, (810) 679-1569.

Deborah VanderLinde, Faculty Advisor. vanderlinde@oakland.edu, (248) 370-3022.

For questions regarding your child's rights as a participant in human subject research, you may contact the Oakland University Institutional Review Board, 248-370-2762.

Signing the parental or legal guardian permission form

Your signature below means that you have read this form, or someone has read it to you, and you agree to give your child a permission to participate in the study.

You are not giving up any legal rights by signing this parental permission form. You will be given a copy of this form.

Print name of participant/child _____

**Print name of parent or other person authorized
to provide permission for participant/child**

**Signature of parent or other person
authorized to provide permission for
participant/child**

Relationship to participant/child

Date

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