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I wanna rock! Self-determined motivation in secondary popular music ensembles

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BOSTON UNIVERSITY
COLLEGE OF FINE ARTS

Dissertation

**I WANNA ROCK! SELF-DETERMINED MOTIVATION
IN SECONDARY POPULAR MUSIC ENSEMBLES**

by

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DEDICATION

I would like to dedicate this work to Francis and Veronica Coyne. Thank you for helping me discover a love of music and for supporting me throughout my journey. I also dedicate this work to my loving family—Nancy, Brendan, and Taylor. Thank you for your patience, encouragement, and unwavering support along this winding road.

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I WANNA ROCK! SELF-DETERMINED MOTIVATION

IN SECONDARY POPULAR MUSIC ENSEMBLES

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ABSTRACT

The number of popular music ensembles in the United States continues to grow, and these programs can vary greatly in size, instrumentation, and curricular design. Researchers have found that popular music ensembles can increase participation in school music programs and often produce high levels of student engagement and motivation. Yet, little is understood about why students are motivated to engage in the varied styles of popular music classes. Self-determination theory posits that students who experience support for their basic psychological needs (autonomy, competence, and relatedness) and perceive autonomy support from their teachers will be more motivated in their classes. This might suggest that popular music educators who support student autonomy and provide for students' basic psychological needs will produce highly motivated popular music education students.

Using self-determination theory as a framework, I examined student motivation in three popular music ensembles in the Northeast United States. Qualitative data were collected through interviews with students and observations of each ensemble. Findings suggest that students enroll in these ensembles because of intrinsic desires to play music and learn to play instruments in a way that differs from their previous school music

experiences. Students in the classes that incorporated more informal and nonformal music learning techniques reported more satisfaction in having all three basic psychological needs met, thus helping increase intrinsic motivation for making music. Students with autonomy-supportive teachers showed high-quality engagement and increased motivation, whereas controlling teachers thwarted students' basic psychological needs and decreased student motivation. The psychological need for relatedness was perceived to be the most common contributor to student motivation, and students with less relatedness support often had lower competence satisfaction. Implications for practice and future research suggestions are provided.

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CHAPTER ONE: INTRODUCTION

Popular music programs have been commonplace for decades across the globe (Ross, 1998; Väkevä, 2006), but the United States has been slow to incorporate these programs into the secondary music education curriculum (Krikun, 2017). In recent years, however, the number of popular music programs in the United States has increased (Powell, 2022). Powell credits much of the growth in popular music programs to the influence of Music Will (formerly known as Little Kids Rock), a non-profit organization that supports popular music in the classroom, though popular music programs existed, and continue to exist, outside of the Music Will sphere.

Popular music education (PME) can be defined as contexts that involve “music teaching and learning utilizing popular musics, such as Rock, R n’ B, Blues, Country, Contemporary Pop, EDM, and other styles currently being recorded and distributed in the music industry” (Cremata, 2017, p. 64). However, the interpretation of this definition can vary depending upon the education context (Mantie, 2013). For example, PME could be used to describe the implementation of popular music into the school music curriculum, such as a history of music lecture course or the use of a pop artist’s song to explain musical concepts in a general music class. PME can also be used to describe secondary music ensembles that focus on learning and performing popular music styles and utilize vernacular forms of music-making and learning, including rock and pop music bands, guitar ensembles, or DJing/beat creation classes using digital audio workstations. In the United States, these types of PME classes often fall under the label of modern band, a term introduced by Music Will (Wish, 2020), that describes a strand of music education

that accompanies traditional school ensembles, such as concert band and orchestra. For the purposes of this study, I will use the latter definition of PME as a secondary music ensemble.

Popular music education is often centered on music that “youth passionately associate with their identities” (Hess, 2019, p. 33), thus contributing to musical experiences that are highly relevant to students’ personal tastes. Folkestad (2006) noted that students enter school classes with sophisticated music knowledge that comes from musical experiences outside of school. By incorporating students’ past musical experiences and knowledge, PME can help increase students’ confidence in their musical skills (Weiss et al., 2017); it can also allow them “to experience smooth transitions between their musical engagement and learning in and out of school” (Tobias, 2015, p. 23). In this way, PME connects students’ musical interests with formal schooling.

Informal Music Learning

Informal approaches to learning have become linked to the integration of PME in schools (Mercado, 2019; Ng, 2018). Davis and Blair (2011) stated that informal learning is an active process where students gain knowledge and skills through interacting with family, friends, and their community. Most students’ music learning occurs informally, outside the formal school music setting (Folkestad, 2006). Informal music learning occurs when students attain music knowledge without teacher-directed, structured instruction. When students engage in informal music learning opportunities, “the informal learning situation is not sequenced beforehand; the activity steers the way of working/playing/composing, and the process proceeds by the interaction of the

participants in the activity” (Folkestad, 2006, p. 141). This learner-centered approach can align closely with students’ everyday musical experiences, making music education more relevant and engaging.

Green (2002) found that musicians in popular music performing groups often learned music skills informally. These methods have often been transferred to PME in school settings. Within PME classrooms, students gain musical knowledge through authentic methods of learning and creating popular music, often incorporating informal learning strategies like those by which much popular music is learned and created outside of schools (Powell, 2021). Thus, the characteristics of informal music learning, such as working in small, peer-selected groups and learning skills in a non-linear format, form the basis for many secondary school popular music ensembles (Powell, 2021). The informal structure of PME may also afford access to musical skills often neglected in large ensembles, such as improvisation and composition (Randles, 2018).

Results of a study of U.S. high school seniors showed that only 24% had enrolled in a traditional large school ensemble during high school (Elpus & Abril, 2019). Meanwhile, in a study of music course preferences for secondary students, Pendergast and Robinson (2020) found that nearly a third of the students surveyed engage with music outside of school while not participating in school ensembles. Williams (2012) labeled these students who engage in music outside of school only as non-traditional music students and listed eight characteristics that describe these students, many of which may attract these individuals to PME courses.

Non-traditional music students typically: (1) are in the sixth through twelfth grades (middle and high school in the United States or Levels 2 and 3 using the UNESCO standards), (2) do not participate in traditional performing ensembles, (3) have a music life independent of school music, (4) may sing or play an instrument (if so, likely drums, guitar or keyboard), (5) may not read music notation, (6) may be unmotivated academically or have a history of discipline problems, (7) may be a special needs student, (8) may aspire to a career in music recording or music industry. (p. 137)

While some of these descriptors of non-traditional music students may be considered derogatory, Williams (2012) developed the list of descriptors through numerous conversations and interviews with music teachers who taught PME classes. Importantly, non-traditional music students have been found to have increased engagement in PME classes (Knapp et al., 2022). This increased engagement can increase retention and participation in school music programs, as PME classes often to encourage involvement in non-PME music classes among non-traditional music students and strengthen re-enrollment (Clauhs & Cremata, 2020; Powell, 2019).

Motivation and Student Engagement

Researchers have found that PME can increase student engagement (Clauhs & Cremata, 2020; Knapp et. al, 2022), yet there is little understanding of why students are more engaged. Engagement is the outcome of motivation, which is the force that moves a person into action, giving energy and direction to behaviors (Ryan & Deci, 2017). While engagement is an observable behavior, “motivation is a private, unobservable

psychological, neural, and biological process that serves as an antecedent cause” of engagement (Reeve, 2012, p. 151). Due to the internal nature of motivation, teachers often have difficulty accurately recognizing engaged or disengaged students (Reeve, 2002). PME classes are a relatively new addition to music education in the United States, and these classes can present opportunities and challenges regarding student engagement and motivation.-An understanding of student motivation could provide valuable insight into how student motivation is attained and sustained within PME ensembles.

Self-Determination Theory

Motivating students towards increased effort and academic success is an important component of teaching. Thus, educational researchers have examined motivation for learning using several different theoretical frameworks, such as Expectancy-Value Theory (Wigfield & Eccles, 2000), Self-Efficacy (Bandura, 1977), and Attribution Theory (Weiner, 1985). While these theoretical frameworks have been used effectively to examine motivation, music education researchers have frequently turned to self-determination theory (SDT) to refine their understanding of what motivates students to participate in music-making (Evans, 2015). SDT is a theoretical framework comprised of 6 mini-theories explaining different motivation aspects. These mini-theories combine into a framework for examining the psychological needs that drive people to act (Ryan & Deci, 2017) and how satisfying these needs can develop and sustain individuals’ motivation.

Intrinsic and Extrinsic Motivation

Intrinsic motivation refers to the pursuit and engagement in activities simply for fun and enjoyment. These activities are highly valued personally and are pursued without the need for external rewards (Ryan & Deci, 2017). Intrinsically motivated behaviors are considered to be *autonomous* or self-determined, as the motivation to engage in the behavior or activity comes from within, from personal choices and decisions that align with the person's sense of self. The level of intrinsic motivation a person feels towards an activity is connected to how much the person finds that activity enjoyable and interesting. When students are intrinsically motivated to engage in an activity, they are more likely to continue engaging in it. Students who are intrinsically motivated in school learn more deeply, are more creative, and persist longer with challenging tasks (Ryan & Deci, 2017).

Unfortunately, not all activities in school are intrinsically rewarding, and students often need external motivators and incentives to engage in school work. Whereas intrinsically motivated actions are done out of a sense of joy and interest, extrinsically motivated activities are pursued for a purpose separate from the task itself (Ryan & Deci, 2017). Students might be motivated by incentives such as prizes for work completion or motivated out of feelings of guilt or shame for not engaging in the requested activity. In a classroom, these extrinsic motivators may create short-term motivation but can be detrimental to the development of sustained engagement and intrinsic motivation (Niemiec & Ryan, 2009). External pressures often drive an extrinsically motivated individual, but the motivation to continue or pursue the activity disappears when the contingencies are gone.

Internalization

SDT theorists postulate that people have tendencies toward personal growth, mastering challenges, and integrating new experiences to create a sense of self (Ryan & Deci, 2017). These tendencies develop through social support, and individuals learn to internalize the values and beliefs of their social surroundings. As values and motivators become internalized, behaviors that were once produced through external motivators become more internally motivated. For students, internalization is essential, as they can develop motivation for sustained engagement with educational activities that are not naturally attractive or enjoyable. Students with well-internalized extrinsic motivation for learning engage in higher-quality learning and have better psychological health (Niemic & Ryan, 2009).

The extrinsic motivation that a person is subject to can be viewed in one of four categories, which vary in the degree to which they are perceived as autonomous (Ryan & Deci, 2017). The least autonomous form is *external regulation*, which refers to motivation through external rewards or threats of punishment. Students working hard in a class to achieve a prize or out of fear of receiving detention are motivated by external regulation. The personal value of the regulated behavior is often very low, and the regulation does not encourage continued engagement with the behavior. As the external events and values start to become internalized, the regulation becomes *introjected*. Motivation towards the behavior is done to satisfy feelings of self-worth or avoid guilt or shame. Someone experiencing introjected regulation feels they must or should undertake a behavior to avoid anxiety or damage their self-image. External and introjected

regulation are seen as controlling forms of motivation, where a person's motivation does not come from personal interest or value but is a result of internal pressures or external controlling forces.

Further internalization of external values and pressures leads to regulation through *identification*, a more autonomous form of motivation where a person consciously endorses the external values of the situation or behavior in which they are participating. People identify the importance of the activity and choose to participate in the behavior. Activities are engaged in without the need for rewards or recognition. While the behavior might not be fun or bring joy, it is something the person finds valuable.

The most autonomous form of extrinsic motivation is *integration*. When one has developed integrated regulation, the external values and motivators have been synthesized with existing personal beliefs and values. Integrated regulation is very similar to intrinsic motivation, although integrated regulation is still a form of extrinsic motivation. The motivation is based on external sources and is not derived from the intrinsic motivation of joy for participating in the activity (Ryan & Deci, 2017).

Basic Psychological Needs

The degree to which an individual finds an activity intrinsically motivating is connected with how much that activity satisfies the needs of that individual (Ryan & Deci, 2017). Satisfying one's basic psychological needs (BPN) can encourage the development of intrinsic motivation and the internalization of extrinsic regulators. People orient themselves towards behaviors that satisfy these needs or away from behaviors that thwart them. Ryan and Deci (2017) theorized that the social contexts that support BPN

facilitate the internalization and integration of external regulations and values, promote connectedness within the social setting, and bring about psychological well-being and growth.

The need for *autonomy* is the need to feel in control of one's behaviors.

Autonomous behaviors are self-regulated, arise from choice and feelings of volition, and are derived from personal interest. People who act more autonomously show greater engagement, vitality, and creativity in their life activities, relationships, and projects (Deci & Ryan, 2012). Autonomy is also connected to *self-regulation*, which is the process individuals use to manage behaviors, thoughts, and emotions (Fujita, 2011). Self-regulation is necessary for becoming self-determined (Ryan & Deci, 2017), making autonomy a vital part of the integration and internalization of external values.

The psychological need for *competence* is the need to feel successful in interactions with one's environment. Feelings of competence are fostered by activities that are just challenging enough to push students to stretch their existing skills without being so difficult as to invite failure. Because self-confidence is positively associated with motivation, these types of optimal challenges help generate intrinsic motivation (Ryan & Deci, 2017).

The need for *relatedness* is the desire to form social connections; it is the need to feel that one belongs and is accepted. Individuals can experience relatedness by feeling that others care about them and by caring for someone else. Environments that support relatedness allow people to bond with others in mutually beneficial ways. When the need for relatedness is satisfied, the individual can internalize someone else's values and

beliefs, making those values into one's own (Ryan & Deci, 2017).

Motivation in Schools

Satisfying students' BPN can lead to increased engagement, deeper learning, and improved well-being, and it is essential for developing and sustaining intrinsic motivation (Reeve, 2016). Unfortunately, researchers have shown that students experience a steady year-to-year decline in intrinsic academic motivation (Gillet et al., 2012; Gnambs & Hanfstingl, 2015). As students' intrinsic academic motivation fades, teachers tend to move towards extrinsic forms of motivation, which typically do not satisfy basic psychological needs. Experiences of anxiety and boredom replace the feelings of joy and interest in learning for students. As students' interest decreases, teachers increase external motivators to "make" learning occur (Niemic & Ryan, 2009).

Teachers act in ways that can support or thwart student motivation. Controlling classrooms, where the teachers pressure students to think or behave in a specific way, offer less opportunity for student autonomy (Reeve, 2012). Meanwhile, an autonomy-supportive classroom is one where teachers use non-pressuring language, promote working with peers, and acknowledge students' feelings (Reeve, 2009). Autonomy-supportive classrooms allow for greater opportunities for students to experience BPN satisfaction.

Motivation in PME

Several researchers have reported increased student motivation within popular music classes and often list strong peer relationships and increased student confidence, alongside increased student motivation as benefits of popular music classes (Chen, 2020;

Koops et al., 2014; Martino, 2014). However, according to SDT, these outcomes are what *lead to* increased motivation, not the components that may accompany increased student motivation within a PME class. For example, Burg (2023) found that motivation was important to students' success in a PME class, and listed student motivation as a factor that influenced the level of student autonomy. However, SDT theorists state that student autonomy is a component, not a product, of increased student motivation (Ryan & Deci, 2017). Differing views of motivational outcomes and sources can make it difficult to determine a student's quality of motivation and whether or not they are receiving support for their basic psychological needs.

PME programs can vary greatly from one program to the next (Mantie, 2013). In current research that examines PME, it is often unclear if the programs reviewed are conducted with more autonomy-supportive methods or controlling methods of instruction. Powell et al. (2015) noted numerous examples of PME programs, but there was little mention of how these programs are taught, whether through controlling motivational techniques or in a more autonomy-supportive method. Researchers have found that growing excitement in PME programs often becomes problematic as teachers blindly adopt PME teaching methodologies and participate in training that does little to account for student nuances (Bylica & Dillon, 2004; Cremata, 2021). Teachers looking to start a PME program might be confused about whether a more formal, controlling approach or less formal, autonomy-supportive approach would best motivate students in their ensembles. A clearer understanding of what motivates students to enroll and engage in PME will help teachers design classes and lessons that will attract and retain students,

as well as develop students' intrinsic motivation for learning in PME classes.

Statement of the Problem

Researchers have suggested that popular music programs excel at satisfying various aspects that support students' basic psychological needs (Powell, 2021; Vasil et al., 2019). For instance, many popular music courses allow students to work in peer-selected groups and choose the music they wish to practice (Green, 2008). These practices of allowing for student choice and friend groups can help satisfy students' psychological needs of autonomy, competence, and relatedness. Determining which aspects of PME help satisfy students' psychological needs could help educators develop stronger motivational techniques for all music students, not just those enrolled in popular music courses.

It is possible that music education does not motivate students to persist in music classes. Secondary students often show a steady decline in intrinsic motivation for school (Gnambs & Hanfstingl, 2015) and place little value and interest in music classes and ensembles typically offered in secondary school music programs (McPherson & Hendricks, 2010). PME programs have helped motivate students to participate in school music programs, especially non-traditional music students who do not participate in traditional school ensembles. However, it is unclear as to why these classes are more motivating to non-traditional music students. How PME classes are run can vary substantially from school to school. Some teachers could be creating autonomy-supportive atmospheres, while other teachers might be using controlling techniques to motivate students to engage in class.

In addition to using motivation techniques, such as extrinsic motivators, that could inhibit the growth of intrinsic motivation, teachers can misinterpret students' levels of engagement and motivation (Martin, 2006). Students often feel differently about the motivational techniques that teachers believe are effective (Ciabattari, 2004). Teachers' perceptions of student motivation can change based on a student's gender, culture, or socioeconomic status (Brandmiller et al., 2020). Teachers must also work against variables outside their classroom, such as the influence of parents and peers, in motivating students to engage in music-making. Misconceptions of students' motivations can lead to frustration of students' psychological needs, especially as secondary teachers are less supportive of students' psychological needs (Graves, 2019). When students' psychological needs are not met, students are more likely to quit music participation (Evans, 2009).

Although students might not initially value the importance of a particular school subject, students can learn to internalize the values of their instructors through effective motivational techniques (Ryan & Deci, 2017). Music teachers can help students understand the value of engaging with music-making, allowing external motivators to develop into intrinsic motivation, which is essential for long-term engagement. Jones and Derges (2022) stated that when students internalize the processes for making music in the classroom, they can develop connections between school music and music-making in other contexts.

Few researchers have examined motivation within PME, and while PME programs can increase student motivation, it is unclear what quality of motivation

students are experiencing and whether or not their basic psychological needs are being supported. Without a deeper understanding of motivation, teachers might apply motivational techniques that frustrate students' basic psychological needs and dissuade continued participation. Further understanding of students' motivation within various PME programs could lead to changes in curriculum design and practices within music education. This could lead to increased student engagement, the development of intrinsic motivation for PME students, and increased enrollment in PME ensembles.

Purpose of the Study

The purpose of this study was to examine the motivational factors and psychological needs satisfaction of students enrolled in three popular music school ensembles. I used Self Determination Theory (Ryan & Deci, 2017), a set of constructs used to investigate motivation, as a framework to determine what factors motivated students to enroll and engage in popular music classes and how psychological needs satisfaction played a role in continued engagement with school-based popular music-making activities.

Research Questions

1. What factors are associated with students' decisions to enroll and engage in popular music education (PME) classes?
2. To what extent do students in this sample of PME classes report experiencing BPN satisfaction?
3. To what degree are autonomy-supportive teaching and various types of external regulation associated with student motivation within PME classes?

Chapter Summary

The purpose of this study was to examine the motivational factors and psychological needs satisfaction of students enrolled in three popular music school ensembles. In this chapter, I outlined the topics of popular music ensembles and student motivation. I briefly explained key concepts connected to self-determination theory, the framework I used in this study to examine student motivation. In Chapter Two, I review relevant literature regarding popular music, informal and nonformal music learning, and self-determination theory. Chapter Three consists of a discussion of the methodology I employed in this multi-case study. Chapters Four, Five, and Six are dedicated to the individual cases in this study, with each chapter representing the data and analysis from an individual case. Finally, Chapter Seven consists of the cross-case analysis, discussion of the findings, implications for practice, and suggestions for future research.

CHAPTER TWO: LITERATURE REVIEW

The purpose of this study is to examine the motivational factors and psychological needs satisfaction of students enrolled in three popular music school ensembles. This chapter is organized into the following sections: popular music education, formal and informal learning, and motivation within education. Motivation is a vast field of study, and there are several reviews of research on educational motivation (Evans, 2015; Graham, 1991; Schunk, 1995; Sin et al., 2022). My review will focus on Self-Determination Theory (Ryan & Deci, 2017), which I used as the theoretical framework for this study.

Popular Music

The genres that make up popular music change easily, vary in different parts of the world, and differ within cultures and age groups, making popular music difficult to define. Middleton and Manuel (2015) describe three ways in which music is recognized as popular. First, the music is consumed by many people. Evidence of popularity can be found in Billboard music charts or the number of views and listens on music platforms such as Spotify and YouTube. Second, popular music relies on mass media for dissemination. Rather than being passed down through oral traditions like folk music, popular genres are spread and shared using physical recordings, radio, streaming services, and social media. Finally, popular music can be the music that is associated with social groups, such as ethnic groups, peer groups, or social movements.

Popular music plays an important role in the life of most adolescents. Music is used as a badge of identity, helping adolescents develop meaningful interactions with

their peers, form positive connections with social groups, and explore social issues such as role experimentation and self-evaluation (Tarrant et al., 2002). While each adolescent's music choices might not be the most popular in terms of airplay or sales, the music strongly connects with who they are, their culture, or the social group with which they identify. Adolescents often gravitate toward music that allows them to separate themselves from disrespectful adults while encouraging socialization with their peers and respectful family members (Miranda, 2013). Music that resonates with their values, emotions, or life experiences helps adolescents find independence and explore who they are, while also creating a sense of belonging and fostering meaningful relationships with their peers. These songs and genres are often not represented in American public schools, creating problems with student motivation, engagement, and long-term participation in school music programs (Kruse, 2016; Williams, 2011).

Popular Music Education

The practice of teaching popular music in secondary schools has been commonplace outside the United States for decades (Mantie, 2013; Till, 2017; Väkevä, 2006), yet PME has been slow to gain a foothold within American public schools. Although method books and schools designated specifically for teaching popular music styles have existed in the United States since the early 1900s, public schools have long neglected to teach popular music styles in favor of Western art music (Krikun, 2017). Educators and scholars have often viewed popular music as music designed for the low tastes of common people and inferior to the more "serious" music of the Western art music tradition (Middleton & Manuel, 2015). Genres such as rock music were avoided in

schools, as many teachers and scholars believed that (a) the music was aesthetically inferior; (b) the music could be harmful to the mental health of children; and (c) that vernacular music had no place in music education, as the music could easily be learned outside the classroom (Hebert & Campbell, 2000). Music pedagogies, such as Kodály, include the use of popular folk songs and vernacular music, yet the music used in these approaches is often dated and therefore holds little relevance to today's students (Hess, 2019; Knapp et al., 2022).

Declining Student Motivation for School Music

The focus on Western art music traditions in U.S. public schools continues today despite a large number of students holding little value for school music programs while placing a high value on music outside of the classroom (McPherson & Hendricks, 2010). Temmerman (1993) found that many students' worst experiences engaging with music came from within school music programs, and their most positive experiences with music took place outside of school. Students' attitudes toward school music often show significant declines as students transition to secondary schools (Kokotsaki, 2016). Students who hold little value for school music programs are less likely to enroll in secondary music courses and continue music engagement post-schooling (Evans, 2009). Without acknowledging students' musical interests, secondary school music programs run the risk of becoming socially and culturally irrelevant.

Motivation for schooling declines rapidly as students get older (Gnambs & Hanfstingl, 2016; Ryan & Deci, 2017), making it harder for teachers to recruit and retain students in music programs. Adolescents develop musical identities connected to the

popular music they enjoy outside of school, which can often contrast with the music presented in classrooms (Hargreaves & Marshall, 2003). Allsup et al. (2018) noted that if “experiences in the music classroom do not affirm the identities students have constructed for themselves, the classroom is felt as inauthentic, perhaps even detrimental to adolescent self-esteem and self-image” (p. 466). This disconnect could lead students to disengage from school music offerings, perceiving them as irrelevant or unwelcoming of their personal musical tastes and identities.

Growth of PME

Calls to include PME within public schools have been numerous, as more diverse arts offerings can increase student enrollment in arts programs and positively affect the overall quality of schools (Kelly & Heath, 2015). Researchers often cite the Tanglewood Symposium of 1967 as an instrumental component in the recognition of PME in public schools, as practitioners from various areas of music agreed that “music of all styles, periods, forms, and cultures belong in the curriculum. The music repertory should be expanded to involve music of our time in its rich variety, including currently popular teenage music” (Choate et al., 1967, p. 51). While public school music programs were slow to integrate PME into school music curricula, support for PME continued to appear in music education literature and research from the 1970s to today (Benner, 1975; Cutietta, 1991; Williams, 2011). Currently, PME programs have begun to increase within American public schools (Powell, 2022), largely due to the development of modern band programs and the help of non-profit organizations such as Music Will, the Rock and Roll Forever Foundation, and the Girls Rock Alliance (Powell et al., 2015). These programs

help provide resources to educators looking to incorporate PME into their classrooms.

The growth of PME can also be attributed to the ability of PME classes to increase participation in school music by motivating non-traditional music students to engage in music-making within school contexts (Clauhs & Cremata, 2020). Knapp et al. (2022) surveyed teachers regarding their perceptions of their modern band programs. Teachers overwhelmingly felt that modern band helped them reach more students, especially those students who had not engaged with school music previously. Similar studies have also shown that PME attracts non-traditional music students (Rolandson, 2020; Veronee, 2017) who do not enroll in classes focused on Western art music, such as traditional school concert bands and orchestras. Teachers from the Amp Up NYC program, an initiative designed to train teachers and provide resources for integrating modern bands into their school programs, believed that their students were more engaged since implementing the Amp Up NYC program (Abeles et al., 2021). Teachers from the program expressed that their music classes did a better job of meeting their students' musical needs after incorporating the popular music program and helped contribute to a more positive school culture.

Benefits of PME

Despite concerns about PME classes taking students away from more traditional school music offerings, adding PME classes to music programs can increase participation in school music offerings such as band and orchestra (Powell, 2019). Claus et al. (2017) found that students enrolled in a modern band had increased interest in joining one of their school's traditional music ensembles, noting that modern band class "welcomes

students into a new culture of school music, one that respects the values and traditions of a variety of musical styles and removes barriers to participation” (p. 28). Similarly, 96% of music teachers interviewed about how modern band programs affect their traditional ensembles believed that their modern band programs helped their traditional ensembles or had little to no effect (Besong, 2023).

Diversity within PME

PME programs can also allow for more diverse classrooms and attract students who have been excluded from traditional school music offerings. Students of color and of low socioeconomic status are underrepresented in secondary school music programs (Elpus & Abril, 2019). For example, Alegrado and Winsler (2020) found that special education students are less likely to participate in music classes and that English language-proficient students were three times more likely to enroll in music classes than students who were not English language-proficient. PME classes have been found to encourage more diverse enrollment than more traditional ensembles in these studies. A study of one high school found that White students were twice as likely to participate in more traditional music ensembles, such as concert band and orchestra, which did not adequately represent the diverse school population (Clauhs & Cremata, 2020). In the same school, students of color and students of low socio-economic status were twice as likely to enroll in modern band courses than White students. As such, the modern band class enrollment was more reflective of the cultural makeup of the student body.

PME Research

While the number of PME classes is increasing, there is little definitive research that measures the extent of PME within the United States. A survey of secondary school principals indicated that popular music ensembles, labeled as “jazz/rock ensembles,” were the third most common music class found in schools, with 55% of the participating schools offering these ensembles (Abril & Gault, 2008). The researchers noted that the high percentage of schools offering popular music was most likely due to the schools’ jazz ensembles and not to an abundance of school rock bands. Similarly, Knapp et al. (2023) found that school districts in New York used the same code for traditional jazz groups and contemporary popular music ensembles when reporting course data to the state department of education. As a result, it becomes unclear as to how many contemporary groups are being taught in schools. While jazz education could once be considered a form of PME, the genre is often less popular with adolescents who tend to have stronger preferences for genres such as Rock and Pop (Davies et al., 2022). Additionally, school jazz ensembles are often taught in the formal manner that school concert bands are taught (Goodrich, 2008) and often incorporate little of the informal music learning techniques that are associated with PME.

More PME growth was noted in an examination of end-of-year surveys from teachers who had participated in workshops hosted by Little Kids Rock (Knapp et al., 2022). According to surveyed teachers, modern band classrooms nearly doubled between 2014 and 2019, with a heavy concentration of programs in areas such as California, Florida, and the Northeastern states. Meanwhile, an examination of music in U.S. public

schools found that 93% of participating high schools offer concert band, while only 5% offered popular music ensembles (Give A Note, 2017). Although these studies indicated varying percentages of PME courses, teachers support increasing PME at the secondary level, suggesting that PME has the potential for further growth (Ronaldson & Conn, 2022; Springer & Gooding, 2013).

Criticism of PME

While PME has been effective at motivating students and engaging more diverse populations, skepticism remains about the appropriateness of the use of popular music in the secondary classroom. Cremata (2019) warned of *schoolifying* popular music, where popular music becomes school music: “As we schoolify music, we strip it from its authentic cultural context and plant it in a foreign one” (p. 417). Furthermore, bringing pop music into classes can create conflict as popular music repertoire selections are often politically, ethically, and ideologically loaded (Abramo, 2015; Kallio, 2017). Abramo (2015) noted that the use of popular music in the classroom “poses a challenge for educators engaged in the work of allowing personal expression through music while challenging social injustice within and through music” (p. 584). Decisions by a teacher about pop music legitimize some musics and delegitimize others. Similarly, researchers have noted that modern band programs can often push a specific genre of music, typically white, male-oriented rock, while neglecting genres that might better align with students’ interests and culture (Hess, 2019; Koskela, 2022).

In addition to connecting with students’ interests in the classroom, teachers can also be a strong motivating force for student learning (Reeve, 2012) and their

preparedness to teach a particular genre of music may impact their ability to motivate students. Surveyed teachers noted the ability to motivate students' knowledge of subject matter as two of the most important skills a teacher needs. Unfortunately, teacher education programs often place a strong focus on teaching Western art music, and beginning teachers are often unprepared to teach PME (Davis & Blair, 2011). A lack of properly prepared teachers could lead to flawed instruction and inauthentic music-making within PME, discouraging students from or limiting students' motivation for active music participation. PME textbooks and curricular materials have become more common, which can aid teachers who are unprepared to teach PME. However, these resources often further schoolification of PME (Bylica & Dillon, 2024) and can also perpetuate the formal educational system that many PME educators are trying to break away from (Smith et al., 2022).

Teachers can minimize some of the complications associated with PME by continually engaging with pop culture and examining opposing interpretations of popular work (Abramo, 2016). Creating opportunities for students to analyze and critically interpret popular music can help students foster new and deeper understandings of the music they engage with. Abramo stated:

When educators do not dictate the meaning of a work, and instead invite students to imagine different interpretations, educators are able to foster critique of popular music that students uncritically consume without creating an environment in which they feel personally judged by the teacher for their listening choices. (p. 591)

Koskela (2022) suggests PME teachers also need to recognize the hegemonic structures that exist in music education and "consider how to bring critical voices to the school and music classrooms, and how to better pay attention to marginalized identities that are being suppressed" (p.13). Scholars also suggest that teachers be critical of PME curriculum content brought into the classroom and look to the work of scholars and teachers who are using PME materials in a thoughtful and enriching way (Bylica & Dillon, 2024).

Authenticity in PME

The use of a piece of popular music in a music class does not necessarily provide the benefits found in popular music classes (Vasil et al, 2019). Tobias (2010) found that a school PME program was most effective at teaching students when the teacher incorporated learning styles used by popular musicians authentic to the genre of music with which students were engaging. Popular musicians often learn music through enculturation and experimentation with familiar music, learning informally without the use of written music notation (Green, 2002). Scholars have called for PME programs to include more authentic learning practices that align more closely with how popular musicians develop skills outside of traditional school settings (Green, 2008; Parkinson & Smith, 2015).

Formal, Informal Music, and Nonformal Learning

Public school music programs have long followed the model of Western art music education, where ensembles are traditionally taught in a formal context (Jaffurs, 2004). In a formal learning environment, the teacher dictates the direction of students' learning by

designing a curriculum and teaching students in a predetermined sequence. Formal learning is systematic and highly structured, with often little input from the student on the direction of their learning (Folkestad, 2006). The teacher's goal is to affect the student in order to obtain a specific desired outcome and emphasizes "seriousness, discipline, order and technical proficiency" (McCarthy, 2016, p. 25). In formal learning environments, learning can be easily assessed and generally aims to produce similar results among all students.

Informal learning is an alternative to formal learning environments. Jenkins (2011) defined informal learning as "the lifelong process by which every person acquires and accumulates knowledge, skills, attitudes, and insights from daily experiences and exposure to the environment" (p. 181). Informal learning does not involve an official, designated teacher; instead, students learn through participation in intrinsically engaging activities. The learners are often self-motivated to become better at the specific task. Unlike formal learning, the student is in control of the direction their learning takes, which often occurs in a more relaxed atmosphere (Jenkins, 2011). Informal learning happens organically and arbitrarily, following no pre-determined course, and is often unintentional. Due to the focus on self-regulated learning, informal learning emphasizes the individual needs and preferences of the learner, personal meaning and fulfillment, and nurturance of elements of play (McCarthy, 2016).

Folkestad (2006) outlined four aspects that distinguish formal and informal music learning. The *situation* defines where the learning occurs, with formal learning taking place in a school setting, and informal learning taking place outside of school. Second is

the *learning style* of the student. Music students learn formally through activities like reading and working with written notation, while informal learning occurs through activities like playing by ear and improvisation. The third distinguishing aspect is *ownership*, which defines who owns the decision-making process within learning. Decisions about the learning come formally from a teacher/instructor, whereas the learning is self-regulated by the student in informal learning experiences. The final determining aspect is the *intentionality* of the learning. In a formal setting, music students focus on learning how to make music, often focusing on a set order of skills to be learned. However, in an informal setting, the student is focused on simply making music without intending to learn a particular skill or following a structured plan from a teacher. Skills are obtained unintentionally, often within the intentional pursuit of learning a song and not from the purposeful aim of learning that particular skill (Folkestad, 2006).

Formal music learning has long been the standard format for public school music programs (Jaffurs, 2004). Students learn from a predetermined order of musical skills and concepts, typically through structured method books and classroom curricula. Conductors of secondary school ensembles serve as the gateway to musical knowledge, assessing students' abilities and selecting appropriate pieces for the group to perform, as well as determining which concepts need to be introduced or refined.

Informal music learning typically takes place through engagement with music outside of the classroom. Green (2002) found musicians “pick up” skills and knowledge by teaching themselves with the help of their peers and through observing other musicians. Green (2008) distinguished five characteristics that constitute informal music

learning:

1. Learners choose for themselves the music to practice and perform.
2. Music is learned mostly by copying recordings by ear.
3. The learning often happens with friends, in social groups, and through peer-directed learning and group learning.
4. Knowledge is learned haphazardly, without direction from a teacher or through a predetermined curriculum.
5. The learner process combines listening, performing, improvising, and composing, emphasizing personal creativity.

These characteristics are common among PME classes, as teachers look to recreate authentic popular music-making experiences (Byo, 2018; Gramm, 2022; Tobias, 2015), and they are often mentioned in connection with increased student motivation (Gramm, 2022; Weiss et al., 2017).

Importantly, both formal and informal learning have drawbacks. While the structured nature of formal learning often leaves little room for students to find their own voice or to express themselves in unique ways (Jenkins, 2011), informal music learning can lead to gaps in a student's learning. Students are rarely pushed out of their comfort zone and are often not exposed to ideas beyond their own educational experiences.

Formal and Informal Learning as a Continuum

While some researchers present formal and informal learning as two distinct modes of learning (Green, 2002), Folkestad (2006) suggested viewing formal and informal learning as opposite ends of a continuum, as most learning situations feature

characteristics of both learning styles. In a study of informally trained musicians (Hess, 2020), participants mentioned a desire for more formal instruction and noted the benefit of accessing the skills from both formal and informal worlds of music learning. As a result of this finding, Hess (2020) stressed the importance of blending formal and informal techniques. This blending of learning styles could be considered nonformal learning (Veblen, 2012). Music students can benefit from a nonformal style, incorporating aspects of the formal structure of the teacher but also allowing for greater levels of autonomy and choice in the direction of their learning (Jenkins, 2011).

Facilitation

As informal music learning techniques are incorporated into a classroom, informal learning becomes nonformal. One key element of nonformal classrooms is the role of the teacher as facilitator. In nonformal PME classrooms, students guide their learning by choosing what to study and how to engage with it. The teacher/facilitator provides support when necessary but largely allows students to direct the learning process. Therefore, the facilitator's responsibilities in a nonformal PME classroom are to help ensure student success as the students engage with informal music learning practices and take ownership in their learning (Cremata, 2017). Cremata further noted that "rather than focusing on blend, balance and uniformity (aesthetic qualities), a facilitator emphasizes individuality, differentiation and freedom (social qualities). This is a shift in values and in the sorts of habits traditionally promoted in music education contexts" (p. 76). By acting as a facilitator, the teacher can create more opportunities for student-centered learning, which can help improve student engagement.

In an explanation of the core values of Music Will's modern band program, Powell and Burstein (2017) listed ways in which facilitating teachers incorporate informal music learning into a music classroom. First, the teacher works to create a comfort zone for students by incorporating students' interests, providing low-anxiety environments, and working to bolster students' self-esteem. Second, the teacher promotes approximation among their classes in place of perfection. This means that students create and perform versions of songs that are not note-for-note replications but close enough to be rewarding and educational for students. Finally, the teacher incorporates composition and improvisation to promote self-expression and positive self-esteem (Powell & Burstein, 2017).

Nonformal Learning and Motivation

Nonformal learning activities have been found to be motivating for students. Teachers reported increased student motivation for reading and writing in elementary students after participating in nonformal reading learning activities with a reading tutor (Putman & Walker, 2010). Students showed more enthusiasm and enjoyment in reading texts that were not in book format, such as those accompanying museum exhibitions. These texts often hooked students' interests in specific topics, and teachers could then use these interests to introduce related texts that the students were more motivated to read (Putnam & Walker, 2010). Similarly, nonformal learning activities in a science classroom led to increased motivation among middle school students to learn science (Salmi & Thuneberg, 2019). While attending a science exhibition, students engaged freely with various hands-on activities designed to increase interest in various science topics and

support the classroom curriculum. The open learning environment and hands-on activities encouraged students to ask questions and engage in ways that differed from a formal classroom science lesson. Students showed increased interest and motivation to learn science that connected with their level of autonomy and freedom during the science exhibit (Salmi & Thuneberg, 2019).

Nonformal learning practices have also increased student motivation in music classrooms. Musical Futures is a program that incorporates informal music learning activities in schools in countries such as England, and enrolled students have shown increased motivation in their music classes (Hallam et al., 2017). The informal music learning activities provided “the means to engage a wider section of the school population in active music making increasing motivation and the opportunities for progression...musically” (p.148). Similarly, Amp Up NYC teachers and parents agreed that students were more motivated to practice their instruments after engaging in modern band classes (Weiss et al., 2017). Students also showed increased positive attitudes towards school and more positive identities after participating in modern band classes.

Motivation

Motivation is a complex theoretical construct and several theorists have attempted to explain its development and application in various settings (Bandura, 1977; Wigfield & Eccles, 2000). It can be defined as the process that directs and energizes goal-directed action (Schunk & Usher, 2012), or as the needs, wants, and desires that move people (Deci & Ryan, 2017). These needs can be physical or biological, such as hunger or sleep, or psychological, including autonomy, friendship, or safety. Theorists who attempt to

explain motivation differ on how motivation develops, either from internal sources, environmental sources, or a combination of both. An examination of motivation looks at the internal processes and external factors that start behaviors, energize and sustain those behaviors, and terminate those behaviors.

Self-Determination Theory

Self-Determination Theory (SDT) is a meta-theory that combines various aspects of previous motivational theories to explain the development and sustainment of an individual's motivation. Many concepts within SDT overlap with those of other motivation theories, such as social cognitive theory (Bandura, 1977), attribution theory (Weiner, 1985), and expectancy-value theory (Wigfield & Eccles, 2000). SDT differs from other theories in that it focuses on various types of motivation, such as internal, extrinsic, and amotivation. While expectancy-value theory focuses on the strength of students' motivation, SDT is concerned with which type of motivation students are experiencing and how various forms of regulation will encourage or inhibit the development of intrinsic motivation. A strongly motivated student might be motivated purely by external regulations, such as grades or social pressures, which, according to SDT, could be detrimental to long-term motivation and internalization of values (Ryan & Deci, 2017).

SDT has been used in several contexts, such as coaching (Mallet, 2005), business management (Meyer & Gagne, 2008), and nursing (Johnson, 2007). Within education, SDT has been frequently used for examining student motivation in several subject areas, including math classes (Lohbeck, 2018), foreign language learning (Jones et al., 2009)

and reading programs (Wehmeyer et al., 2017). While few researchers have used SDT to examine motivation within informal learning, Salmi and Thuneberg (2019), as noted earlier in this chapter, found that science students attending an informal science exhibit showed increased autonomy, which led to greater interest in learning science both in and out of the classroom.

Music education researchers have often turned to SDT to examine student motivation. Liu (2016) used SDT to examine student motivation in high school orchestra students, finding a connection between self-determined motivation and the students' intentions to continue participating in their school orchestra. Similarly, Freer and Evans (2019) examined the motivational climate in music classrooms using SDT and how the classroom climate related to students' motivation to enroll in elective music courses. Students were motivated to enroll in classes when they perceived their teacher as being supportive of their psychological needs. LeBeau (2020) examined the motivation of beginning concert band students who switched to non-beginning instruments. Students were more motivated to play their instruments when they were given a choice of instruments to play and when they felt like they were contributing to the success of the group

Physical education (PE) classes face many challenges at the secondary level, including decreased student interest and engagement (Parish & Treasure, 2003), an issue also faced in music education. Traditional PE classes that emphasize sport-specific skills, competitive teams, and focus on high-ability students lack relevance to many students and do little to promote lifelong engagement outside of the classroom (Freer, 2012;

Green, 2012). Just as popular music classes have been used to increase student participation, alternative PE programs have also been shown to increase student engagement. For example, researchers used SDT to examine the perceptions of students in an alternative PE class that was designed with increased opportunities for student autonomy (McNamee et al., 2017). The course included aspects similar to informal music learning, such as student choice and the ability to work with friends. Students in the alternative class valued the opportunity to have a selection of activities to pick from and were encouraged by the ability to work closely with friends. Students mentioned how they were less likely to participate in class activities in previous classes when activities were forced upon them (McNamee et al., 2017).

Self-Determination Theory Mini-theories

The various ways individuals experience and develop motivation and self-regulation are described in the six mini-theories that comprise SDT. While this study focuses largely on basic psychological needs theory, student motivation can be described through aspects of all six mini-theories. In the following section, I provide a brief overview of the mini-theories relevant to my study, offering the reader insight into how these theories explain and influence motivation.

Cognitive evaluation theory describes how rewards, feedback, and other external factors affect intrinsic motivation (Deci & Ryan, 2012). How an external event affects an individual's perceived autonomy or competence will affect the individual's intrinsic motivation, as external events can be supportive or thwart an individual's basic psychological needs. The impact of rewards, feedback, or other external events is

dependent upon how the individual interprets the reward. These external events can be controlling, informative, or amotivating. Controlling events push students to act in preferred ways and undermine intrinsic motivation by limiting students' autonomy. Tangible rewards that are outcomes of expected or contingent behaviors are controlling events. Competence-enhancing events, such as positive teacher feedback or peer praise, are informational and reward students for improved competency and functioning. These events have a positive effect on intrinsic motivation. An amotivation aspect of an external event or activity will undermine both intrinsic and extrinsic motivation, promoting a lack of drive to engage in the activity. Amotivation is a significant factor in students stopping music participation (Evans, 2015; Gerelus et al., 2020).

Basic psychological needs theory explains how the psychological needs of autonomy, competence, and relatedness are the fundamental resources of motivation. Psychological needs energize engagement and are the nutrients needed in daily life for individuals to be psychologically, physiologically, and socially well (Ryan & Deci, 2017). People are motivated to pursue and continue behaviors when psychological needs are satisfied. Behaviors are more enjoyable when they are more aligned with one's sense of self. Motivational levels can increase, and behaviors can become internalized when one's psychological needs are met, which leads to increased well-being. Satisfying psychological needs helps produce and maintain intrinsic motivation. Autonomy support from individuals can also enhance one's needs satisfaction, while controlling behaviors will thwart need satisfaction. Needs satisfaction can be an important factor in student learning, as students are more engaged in classes when experiencing needs satisfaction,

and greater engagement produces greater needs satisfaction (Reeve & Lee, 2014).

When students experience psychological needs satisfaction, they are more likely to internalize the values of external motivators. Students want to internalize the social norms and behaviors of their surroundings, as they are motivated to increase their competence with their social world. *Organismic integration theory* explains how these external regulators can become behaviors that students value. Students experience greater autonomy and positive functioning the more they internalize external regulations (Reeve, 2012). The extent to which external regulations become self-determined behaviors is linked to the amount of autonomy a student experiences. Some external regulations are controlling, such as extrinsic and introjected motivation, and others are more autonomous, such as identified and integrated motivation. The more autonomous the regulation, the more likely a student will internalize the external regulation and develop volition for activities that are not initially enjoyable or interesting (Niemi & Ryan, 2009).

Relationships motivation theory explains how quality relationships can have significant effects on motivation. People have a psychological need for relatedness, and satisfaction of this need is essential for psychological growth and wellness (Ryan, & Deci, 2017). High-quality relationships are a result of the satisfaction of all three psychological needs. Most research supporting relationships motivation theory has focused on romantic relationships, and few studies have examined the effect of quality student-student relationships and student-teacher relationships. High-quality student-student relationships have been found to be connected to relatedness satisfaction, and

positive student-teacher relationships are associated with students' perceived satisfaction relatedness and autonomy needs (Bakadorova & Raufelder, 2018).

BPN and Autonomy-Supportive Teaching

Whether students are engaged in formal, nonformal, or informal learning practices, the teacher plays a significant role in developing or reducing student motivation in how they approach students' BPN (Reeve, 2012). Teachers' motivational techniques range from controlling behaviors to autonomy-supportive techniques for their students. Controlling behaviors demand that students act and think in a specific way, but autonomy-supportive behaviors are empathetic toward students and prioritize students' psychological needs and perspectives. Autonomy-supportive teachers provide rationales for rules and activities and give students opportunities to direct their learning and solve problems in their own ways (Reeve, 2009). Teacher autonomy support helps students satisfy BPN and allows students to internalize instructors' and peers' external motivations and values, thus developing greater intrinsic motivation and leading to higher-quality engagement (Ryan & Deci, 2017).

Autonomy Support within Popular Music Education

While few researchers have examined motivation in PME classes, evidence of how PME supports students' basic psychological needs and the development of intrinsic motivation can be found in several studies of PME (Clauhs & Cremata, 2020; Gramm, 2021). SDT theorizes that BPN support in classes often results from teachers employing autonomy-supportive practices. An examination of existing PME research indicated several practices that PME teachers use that could be considered autonomy-supportive.

The research does not link these practices with increased student motivation but the practices are often mentioned in the discussion of PME classes with increased student engagement and motivation. These practices include facilitation, opportunities for peer interactions, provision of optimal challenges, and supportive feedback.

Facilitation. Supportive relationships between teachers and students can positively affect students' motivation, as students' needs for autonomy and competence would be challenging to satisfy without trust and support from teachers (Reeve, 2009). Psychological needs satisfaction for music students often results from teachers adopting the role of facilitator. As noted earlier in this chapter, in contrast to ensembles based in the Western art music tradition, where a conductor determines the learning pathway for students, facilitators guide students in ways of leading themselves, creating "safe contexts for learning and conditions optimized for self-guided, self-directed, discovery-orientated, experiential education" (Cremata, 2017, p. 64). Facilitation allows the learning environment to become more learner-centered, providing students with more opportunities to support their needs for autonomy and competence.

Facilitating a student-centered, low-controlling classroom helps teachers provide students with opportunities for psychological needs satisfaction through connections with classmates and instructors. Brook et al. (2019) observed how students in a school rock band class developed connections to their teacher, who taught using informal music learning techniques. These connections ensured that students felt safe and successful, and they extended the learning environment by motivating students to learn and perform music outside the classroom. Likewise, students in a composition-based music

technology class noted how their teachers' facilitation of the class created a classroom culture that was collaborative, supportive, and encouraged creativity (Albert, 2020). The teacher/facilitator's "multiple roles in the class—both as co-learner and teacher— influenced students' motivations to continue engaging in creative activities" (p. 394). The teacher/facilitator created an environment that incorporated positive student interactions which allowed students to take on teaching and leadership roles in the music classroom.

Facilitators who place a high value on students' opinions can help create more democratic classrooms in which students and teachers learn together and both groups' opinions are voiced (Allsup, 2003). Democratic classrooms give students opportunities to direct their learning and help satisfy autonomy and relatedness needs. Tobias (2015) described a high school popular music songwriting class in which students engaged with informal music learning and had opportunities to make choices in several aspects of their projects. The students noted that the class positively impacted their musicianship and enabled them to connect more deeply with music-making outside of school. Similarly, students in a university rock band rated the democratic environment as an important aspect of the group (Powell, 2011). The class's democratic structure increased the students' feelings of competence and helped them "develop from selfish and immature players and become musically mature members of the ensemble" (p. 222). The group members reported higher levels of communication among themselves than they had experienced in previous music groups which helped motivate them to engage more with music in and outside of the music classroom.

Peer Interaction and Mentoring. School music learning frequently occurs in social environments, with students learning and practicing while surrounded by their peers. Students consciously and unconsciously acquire and “exchange skills and knowledge by listening, watching, imitating, and talking” (Green, 2008, p. 10). Music students enter the classroom with varying levels of skills, creating valuable opportunities for peer learning (Harrington, 2016). Autonomy-supportive teaching can increase students’ opportunities to engage with each other in meaningful ways that help satisfy their psychological need for relatedness.

Peer learning groups are another aspect of PME that can generate feelings of relatedness and competence, thus satisfying those needs. In Gramm’s (2021) study of a high school rock band class, high school students noted that social aspects of the group were an essential part of their schooling, as the lighthearted and democratic nature of the class allowed for the development of strong social bonds between students. The class facilitator provided a relaxed atmosphere where students became more receptive to learning from each other and showed a better understanding of peer feedback. Similarly, Martino (2014) found that students with different levels of expertise found success working together to learn popular music on guitars and keyboards. Less experienced students could feel successful on their instrument after working with more experienced peers and showed greater enthusiasm towards learning music. Through working with their peers, students “felt that they had the freedom to express their musical ideas in a meaningful way” (p. 88) and had more opportunities to speak up in the classroom. Martino noted that peer-directed learning led to student empowerment, which increased

motivation to participate in music-making activities (Martino, 2014).

Participation in popular music groups can be meaningful in developing social identity, as participants have shown increased self-esteem and perceived status within their peer group (Green, 2008). Byo (2018) found that modern band participation created opportunities for students to develop positive identities. Teamwork and cooperation became valuable parts of the modern band classes, and band members developed a sense of community as students helped each other with various aspects of their learning. Cremata and Powell (2017) found that students in a digital music class experienced a sense of flow (Csikszentmihalyi, 1996), a form of intrinsic motivation that develops from a state of total immersion and enjoyment of an activity. Students' self-esteem and knowledge grew as they experienced flow, which happened more frequently when the teacher did not interfere with the peer collaboration. The researchers noted that this type of learning might lead students towards lifelong music engagement.

Cremata and Powell's (2017) study also demonstrated how satisfying the need for relatedness can often help students look past learning differences that might otherwise hamper learning and engagement in PME. High school students in the study overcame their initial hesitations about working online with unfamiliar peers on a composition project. The facilitator provided space for students to work together, and as they discovered shared interests, the students began to develop feelings of relatedness, allowing them to work in an environment that encouraged lifelong music participation (Cremata & Powell, 2017).

Optimal Challenges. Students can feel strongly motivated when they are engaged in challenging tasks, but not so challenging that they diminish the feelings of competence. Optimal challenges help satisfy the psychological need for competence, increase engagement, generate feelings of satisfaction towards learning, and spontaneously generate intrinsic motivation (Ryan & Deci, 2017). Teachers need to be autonomy-supportive when implementing optimal challenges, as students must feel a degree of autonomy when undertaking challenges to enhance intrinsic motivation.

One method for providing optimal challenges to students is scaffolding, where teachers employ techniques that allow students to slowly gain confidence and independence in the learning process. Scaffolding is a way for teachers to “create and/or modify lesson plans to be accessible at a variety of levels of experience, and for students at these levels all to interact at the same time” (Powell & Burstein, 2017, p. 249). New concepts and techniques can be slowly introduced within a familiar framework, allowing students to build confidence on their instrument. Teachers of modern band classes often adjust guitar fingerings and strumming patterns based on the students’ experience level. For example, in a study of a modern band by Byo (2018), the teacher provided chord charts for the piano and guitars. Once they were comfortable with the chords and fingerings, the students were free to improvise the accompaniment according to their level of ability.

Teachers often need to adjust their practices to provide students with optimal challenges. Rathgeber (2017) examined the experiences of a music therapy rock band made up of students with Down Syndrome and Autism Spectrum Disorder. The teachers

helped students find competence by playing instruments in ways that were compatible with their abilities, often showing “little reverence for traditional or accepted instrumental techniques” (p. 378). By tuning instruments differently, applying stickers to instruments, and re-voicing chords, teachers made it easier for the students to play the instruments and thus to arrive at music-making more quickly, helping to satisfy students’ need for competence. Students were given opportunities for autonomy by choosing whether to use the adaptations. Rathgeber suggested that teachers ignore the correct way of playing instruments to allow students to enter their “learners’ musical worlds” (p. 378) and thus gain a better understanding of their abilities.

Approximation, a technique mentioned earlier in this chapter, is an important part of providing optimal challenges in modern band classrooms. Powell and Burstein (2017) defined approximation as “the process by which students create and replicate versions of songs that, while not without flaws, are close enough to the original piece to be both fulfilling and educational for the student” (p. 248). By approximating songs, students can focus less on perfecting performances and more on participating in ways that satisfy needs for competence and relatedness. Gramm (2021) noted that when students in a high school rock band class set aside the goal of creating a perfect rendition of a song, they gained competence, experienced lower levels of anxiety, and exhibited more openness towards critique from peers.

Feedback. Student-centered approaches can often provide opportunities for autonomy-supportive feedback, both from peers and the facilitator. Teachers can act as facilitators, allowing students to direct the learning while offering non-controlling

feedback at appropriate moments to help students find success. In Green's (2008) study, teachers working with students in informal music learning settings acted as musical models, offering feedback only in response to the students' needs. Silverman (2009) observed that students in a guitar class that incorporated positive peer reinforcement performed better on evaluations than students in a class without peer feedback. Silverman suggested the positive feedback helped create an environment that led "to better practice habits, motivation, learning experiences, and, ultimately, performances" (p. 6).

Friends also play an important role in providing feedback and thus satisfying needs for competence and relatedness because students often value feedback more from their peers than from their teacher (Lebler, 2007). Albert (2020) noticed that students' mutual use of constructive feedback created a motivational classroom culture in a technology music class. Gramm (2021) found that students in a high school modern band class valued the feedback they received from their classmates and preferred it to the feedback from the facilitator. Similarly, Weiss et al. (2017) credited students' increased confidence levels to constructive feedback from peers and the low levels of anxiety and judgment from classmates and teachers.

Conclusion

In this chapter, I reviewed relevant literature on popular music education (PME) and theories of motivation in education, with an emphasis on Self-Determination Theory (SDT). PME has been gaining popularity in the United States, and researchers frequently attribute this growth to increased engagement and motivation among students participating in these classes (Koops et al., 2014; Martino, 2014). Reeve (2012) noted

that engagement is the product of motivation, and while engagement can be an observable action, motivation cannot be seen through observation. SDT has been used in many music education research contexts to examine student motivation and could be a valuable tool for investigating student motivation within popular music performing ensembles.

While there is a lack of research that explains the extent to which students within PME are motivated and how that motivation is generated and sustained, several examples of motivating behaviors and conditions can be found in PME research literature (Gramm, 2021; Weiss et al., 2017). Yet, these studies often mention motivating factors, such as student autonomy and working with peers, alongside increased student motivation as positive outcomes of PME classes, as opposed to being components of the increased motivation. It is unclear as to what is creating the increase in motivation. The quality of motivation that PME students experience is also not addressed, and it is unknown whether students are experiencing intrinsic motivation or being motivated by external regulations.

SDT explains how teachers can support students' BPN, helping them to develop more self-determined forms of motivation. Without a more detailed explanation of students' sources of motivation, teachers could misinterpret students' motivational quality and possibly teach in a manner that is detrimental to the development of students' intrinsic motivation. Therefore, in this study, I examined the motivational factors and psychological needs satisfaction of students enrolled in three popular music school ensembles.

CHAPTER THREE: METHODS

The purpose of this study was to examine the motivational factors and satisfaction of psychological needs among students enrolled in three popular music school ensembles. I utilized a multiple case study design and collected data through interviews with students and teachers, classroom observations, and artifacts. In this chapter, I explain my research design, participant selection, data collection procedures, and data analysis procedures.

Case Study Design

Several researchers have examined motivation with Self-determination Theory (SDT) in the music classroom (Bonneyville-Roussy et al., 2020; Evans & Liu, 2019; Freer & Evans, 2019). The majority of these studies were quantitative and focused on large numbers of student participants. For example, Evans and Liu (2009) surveyed 700 orchestra students to examine the effects of psychological needs satisfaction and frustration. Freer and Evans (2019) surveyed 395 high school music students to determine how student motivation is affected by the motivational climate of the music classroom and students' perceptions of the music teacher. Graves (2019) used SDT to examine 749 students' views of belongingness and relatedness in the band classroom.

While quantitative research can provide objective information about participants, qualitative researchers study individuals or groups in “a natural setting, attempting to make sense or interpret phenomena in terms of the meanings people bring to them” (Creswell & Poth, 2018, p. 8). People construct reality by interacting with their social worlds, and qualitative research is conducted to understand reality from participants' perspectives, as meaning is embedded in their experiences (Merriam & Tisdell, 2016).

Researchers have successfully used qualitative approaches with SDT when examining motivation in the music classroom. LeBeau (2020) used SDT in interviewing students about their experiences switching from beginning to non-beginning band instruments. Wang (2023) asked 13 students open-ended questions about the factors that helped students persevere in studying music during the COVID-19 pandemic. Both researchers successfully applied qualitative research techniques, such as semi-structured interviews and open-ended response questions, to help understand student motivation in differing music contexts.

Yin (2018) listed case studies as one of five differing research methods. When defining a case study, Yin (2018) noted:

A case study is an empirical method that investigates a contemporary phenomenon (the “case”) in depth and within its real-world context...and copes with the technically distinctive situation in which there will be many more variables of interest than data points. (p. 15)

A multiple-case study examines a phenomenon across several individual cases, first through a within-case analysis followed by a cross-case analysis (Yin, 2018). A within-case analysis examines data from each case to comprehensively understand the contextual variables. A cross-case analysis examines the findings from each case and seeks to find relationships across the individual cases. While studying a single case can offer a deep insight into a particular phenomenon, examining multiple cases allows for the comparison of themes across cases, creating evidence that is often more compelling and robust than single case studies (Yin, 2018, p. 54).

A multiple case study is often chosen to provide different perspectives on the phenomenon under investigation (Creswell & Poth, 2018) and how they may differ in varying environments. Popular music classes can take on different forms (Mantie, 2013) and similar programs might have differing aspects that could affect student motivation. Therefore, for this study I chose to examine multiple cases to examine the motivational factors and psychological needs satisfaction of students enrolled in popular music school ensembles. Multiple case studies can help provide stronger findings compared to single case studies, as more cases can provide substantial analytic benefits (Yin, 2018). Students enrolling in music ensembles can be motivated by factors such as peer influence, a previously established relationship with the instructor, or the enjoyment of music-making. Student motivation can also be influenced by ethnicity (Fan et al., 2012) and socioeconomic status (Li et al., 2020), so I examined popular music programs in varying school districts to provide a detailed description of students' motivational factors in relation to the PME program they were enrolled in.

For this study, I followed the procedures for conducting multi-case study research as described by Yin (2018). A case can be defined as a real-world, contemporary phenomenon where the boundaries between the phenomenon and context may not be clear, and the researcher has little control over the behavioral events (Yin, 2018). Yin differentiated between four case study research designs: single-case holistic, single-case embedded, multiple-case holistic, and multiple-case embedded. An embedded study is used when attention is given to subunits of a case. I used a multiple-case embedded method to examine student motivation in popular music classes. The unit of analysis, or

case, for this study was the popular music ensemble as a whole and the school environment in which it existed, and the students were subunits of each class examined.

Cases and Participants

When selecting cases to study, I sought three cases that (a) were popular music ensembles in public secondary schools in the United States, (b) incorporated aspects of nonformal and informal music learning (Green, 2002), and (c) were scheduled during the standard school day. My interest was not in PME programs offered as after-school activities, nor in ensembles taught using a formal teaching method. I sought programs that allowed any student to enroll, regardless of prior experience with popular music making.

I selected secondary schools with popular music programs through convenience sampling (Creswell & Poth, 2018). As a secondary school teacher of popular music ensembles, I have extensive experience with popular music pedagogies and connections to several school districts that provide popular music classes in my immediate area. After examining several high school websites of course offerings for popular music ensembles, I contacted nine teachers inquiring about their programs. Some of the teachers with whom I spoke ran their programs as after-school ensembles or taught their popular music ensembles formally, similar to instructional methods used for traditional large school ensembles. Without observing the programs ahead of time, I chose programs based on my conversations with the teachers about how their program was run.

I examined popular music ensembles in three different school systems in the Northeast. For each case, four students were interviewed. Students were chosen with the

assistance of the ensemble's instructor. When selecting students to interview, I asked the ensemble's teacher to help me choose students with varied amounts of experience with their instruments and varied experience with PME. The names of the schools, the students, and their popular music programs were all given pseudonyms to provide anonymity for all the participants.

South High School

The first case I examined was a popular music program at South High School, located in a small city in the Northeast. South High School offered several music classes, such as concert band, orchestra, chorus, guitar workshop, piano workshop, and music technology. The school also had a competitive marching band and South's Jazz Band had won several awards at local high school jazz festivals. Mr. H, the school's concert band and jazz band teacher, created Jam Time, South's popular music ensemble three years prior to this study. I asked Mr. H to help me choose students to interview, telling him I would like to speak with a diverse group of students. He chose Amari (12th grade), Anthony (11th grade), Jordan (10th grade), and Beatrice (10th grade).

West High School

The second case I examined was West High School. West is one of several high schools in a large city in the Northeast. The school had a small music program. Students can enroll in chorus, concert band, or piano class. Mr. K taught Concert Band, which became the school's popular music ensemble. It was West's only instrumental performing group. For the interviews, I specifically asked to interview Alijah (11th grade), who was one of the more engaged students in class. The other three students were

chosen out of convenience, as they happened to be nearby to Mr. K at the time we decided which students to interview. The remaining interviewed students were Junior (12th grade), Nara (12th grade), and Kiara (11th grade).

East High School

The final case was East High School, located in a small suburban town in the Northeast. East had a robust music performance program with several auditioned and non-auditioned choirs, orchestras, and concert bands, as well as guitar classes, music technology, and Latin percussion. Mr. G created the Popular Music Ensemble, which had been running for three years at the time of this study. I asked Mr. G to help me select students to interview and we chose to speak with Rebecca (9th grade), Eddie (11th grade), Sam (11th grade), and Alicia (11th grade).

Data Collection

I collected data according to the protocols outlined by Yin (2018). I collected evidence from multiple sources to ensure the corroborating of the data through triangulation and to provide an in-depth examination of student motivation within popular music-based classrooms. I used interviews, email correspondence, direct observations of the classrooms, and an examination of artifacts to collect relevant data.

I emulated the data collection methods used in similar multiple case studies that examined school music programs, student motivation, and BPN satisfaction. Vasil (2015) used a multiple case study to determine teachers' perspectives on enacting change by integrating popular music practices into their secondary school music programs. Vasil collected data through semi-structured interviews, classroom observations, documents,

and artifacts. Similarly, LeBeau (2020) used semi-structured interviews and classroom observations for a multiple case study to examine music students' motivation to switch instruments.

I designed semi-structured interview questions based on questions used in the Motivation to Learn Music Questionnaire (Comeau et al., 2019) and the Academic Self-Regulation Questionnaire (Ryan & Connell, 1989). These scales were designed for quantitative studies to help researchers determine aspects of psychological needs satisfaction and motivation. These instruments use a Likert-type scale to gauge student responses. For this study, I altered the questions from these surveys to be open-ended, allowing students to give detailed answers regarding their motivation. Several qualitative studies have used similar questions to help understand student motivation concerning SDT (Billaud, 2014; LeBeau, 2020).

Observations

I conducted observations at each school as a non-participant in the fall of the 2023–2024 school year. I scheduled one dedicated formal observation at each school. Due to scheduling restraints, more formal observations were not possible, and the single observation was deemed adequate for data collection. Additionally, I conducted partial observations of each group while waiting to interview the students. Observing the students in the popular music classes allowed me to gain more insight into the reflections shared during the interviews. I used field notes to record personal reflections, insights, and ideas that developed over the course of the class. I video recorded each dedicated rehearsal and reviewed and analyzed the recordings to ensure accuracy of data collection.

Each formal observation lasted for one class period, which was approximately one hour long. For two of the cases, I sat in the auditorium, with no interactions with the students. For the third case, I observed students working in small groups in separate practice rooms spread around the music wing of the school. I spent approximately ten minutes with four different groups. The students were introduced to me at the start of class, before the class split into the individual practice groups. I was able to enter and leave each group's rehearsal space without interrupting the students' practice. I was aware of my physical location and presence for each observation, and I sought not to distract students from their work with the groups.

During each observation, I looked for data that would help to determine and explain students' levels of BPN satisfaction. While motivation is an unobservable internal process, Reeve (2012) noted engagement is the external expression of motivation and that a "student's classroom engagement is invariably a joint product of his or her motivation and classroom supports versus thwarts" (p. 152). Through classroom observations, I sought evidence of how the PME classes supported or thwarted students' BPN satisfaction. I noted data such as teacher comments and language, classroom procedures, and classroom structure as it pertained to student motivation. SDT posits that motivation requires ongoing social supports (Ryan & Deci, 2017), so I also sought evidence regarding student-to-student interactions and student-to-teacher interactions. I used this data to corroborate the data collected from the student interviews and paint a larger picture of the nature of student motivation in the PME classes.

Interviews

Yin (2018) stated interviews were the most important source of evidence and allow the interviewer to gain “explanations (i.e. the “hows” and “whys”) of key events” (p. 118). I conducted semi-structured interviews with four students for each case. I audio-recorded and transcribed all the interviews to ensure a reliable copy of the participants’ responses. I carefully avoided leading questions, which can lead participants to accept the researcher’s point of view and provide flawed data (Yin, 2018). The semi-structured interview questions encouraged students to share their stories about their experiences in PME, helping to determine the factors that influenced their motivation (see Appendix A). I asked follow-up questions to clarify students’ thoughts when more detail was needed.

Interviews took place approximately one week after the initial observation of the PME class. After the observation, I visited each school twice and conducted two interviews on each visit, each of which took place during the scheduled PME class. In one case, students in the observed PME class had a second music class with the same music teacher immediately after their PME class. At the music teacher’s suggestion, I conducted interviews for dual-enrolled students during both music classes. Each student was interviewed individually for approximately 30 minutes. When applicable, students were interviewed in a separate classroom or office that was connected to or near the PME classroom. One of the ensembles rehearsed in the school auditorium, which was used to interview students, as no outside room was available at the time of the interviews.

Artifact Collection

The classroom environment is an important factor in students' BPN satisfaction (Reeve, 2012). Therefore, I sought artifacts in each class that might connect to students' sources of motivation. I hoped to find examples of how students were learning music in their classes, the equipment they used, and how these artifacts connected with formal, informal, and nonformal music learning experiences. I examined classroom artifacts such as course syllabi, band/music program handbooks, and pedagogical resources that students used to learn individual parts, such as websites, tutorial videos, and audio recordings. These items helped to create a detailed description of the classroom and could be used to support the data I collected from the observations and interviews. I examined these items to provide additional data for students' BPN satisfaction in the PME classroom.

Data Analysis

When analyzing my data, I followed Yin's (2018) suggestion of "relying on theoretical propositions" (p. 168). I examined the data and coded the information by focusing on terms and phrases that connected with motivation and BPN. I used In Vivo coding (Saldaña, 2021) for my first cycle of data analysis and developed a list of codes that were generated from the exact words of my interviewees. Saldaña (2021) suggested this method of coding as appropriate for studies that "prioritize and honor the participant's voice" (p.138).

I used Lumivero's NVivo 14 software to assist the coding process and organization of my coding data. Within NVivo, I imported all interview transcriptions

and observation notes. In addition to highlighting specific words and phrases to generate codes, I used word frequency counters and the word cloud generator to help visualize patterns within each case. Once the coding was complete, I shared the list of codes and copies of my coded data with my dissertation advisor who approved of the code selections. After the first cycle coding process, I examined the results for emergent themes. I organized my data by code mapping (Saldaña, 2021), which allowed me to categorize my initial codes. For the second coding cycle, I applied pattern coding, which allowed me to categorize codes and themes into groupings connected to individual research questions. I used the resulting categorization of the themes to develop a within-case analysis for each case. Finally, I compared the themes from each case to find patterns and connections between the varied PME programs. I developed a cross-case analysis from the resulting comparison.

Ethical Considerations

Before I contacted any participants for this study, Boston University's Institutional Review Board (IRB) examined my procedures, interview questions, and the assent and consent forms. Following the IRB review and the determination that further approvals were not required, I contacted administrators of the participating schools for approval to use the sites for the current study. School names and locations were changed for confidentiality. I sent letters of consent to teachers at the participating schools. The letters outlined the purpose of the research, and I gave all participants pseudonyms. Similarly, I sent letters of consent to parents and guardians of the students involved in the study. Teachers from each school distributed and collected the signed consent forms, and

I did not schedule observations and interviews until all the forms were collected.

Reliability and Validity

Yin (2018) outlined four tests that can be used in case studies to ensure validity: construct validity, internal validity, external validity, and reliability. I employed construct validity by identifying appropriate operational measures for a multiple case study. For my data collection, I used multiple sources of data. When the data collection was complete, I incorporated member checking for all the interviews. Each student reviewed printed copies of their interview transcripts during follow-up visits to the PME classes. Two of the interviewees in one case were not available at the time of my return visit, so I emailed the interview transcriptions to the students, and the students replied with their responses to the transcriptions. Only one student requested small changes to the transcript, as they wanted to remove the frequent occurrences of the words “um” and “like” that they used throughout their interview. I created internal validity by conducting a cross-case analysis. I approached each case as an individual study and developed key findings for each case. I then determined similarities and differences between the cases and developed conclusions that explain the differences between the cases. For external validity, I employed replication logic by choosing PME programs with similar structures. While each program had minor differences, Yin (2018) suggested that cases with slight changes to the experimental conditions can be examined to see whether the findings were duplicated, thus strengthening the study’s validity. To establish reliability, I followed Yin’s (2018) case study protocol model, in which Yin promotes the development of detailed descriptions concerning the overview of the case study, data collection procedures, and

protocol questions. I have outlined the steps I took to adhere to the protocol early in this chapter.

Researcher Bias

I am aware that my experiences as a musician and teacher may influence my research. My own experiences as a music student are a combination of both formal and informal music learning methods. As a music teacher, I have successfully implemented non-formal music learning techniques in my classroom, and I have seen how these techniques have helped motivate my students. I understand it is impossible to remove all researcher bias. I remained what Creswell and Poth (2018) refer to as a non-participant observer and refrained from sharing my opinions on teaching strategies or imposing my own teaching methods while being present in the classroom.

CHAPTER FOUR: SOUTH HIGH SCHOOL

South High School is a high school located in a small city in the northeastern U.S., with approximately 1,000 students from ninth through twelfth grades. Hispanic students comprise 63% of the school population, and 25% are English-language learners. Approximately 55% of the students at South are low-income, while 68% are high-needs students who are students designated as either economically disadvantaged, having disabilities, or English language learners¹. The school offers many music classes that are common in secondary public schools, such as orchestra, concert band, choir, and music technology.

South's band director, Mr. H, had been searching for a way to get more students involved in the school's music programs. He realized more entryways into playing music were needed, as there was no pathway for students who had never played an instrument to join the school's concert band or orchestra. Although he had no experience with popular music or training with popular music pedagogies, Mr. H created a new class called Jam Time, where students experience hands-on music-making through popular music and using instruments such as guitars and drums. Mr. H shared that he felt these instruments were more relatable to students than clarinets and trombones would be. At the time of this study, the class was in its fourth year and had grown from an initial size of 15 students, to 2 sections of 20 or more students. Several previous sections of Jam Time have performed on bucket drums for school convocation and pep rallies.

¹ I retrieved this information from the school's website and their profile on the state's Department of Education website. I have not provided the URLs to maintain the school's anonymity.

I was introduced to Mr. H's class through a professional development workshop he led at a state music festival. He presented the bucket drumming unit he uses with his students in his Jam Time class. His energetic and boisterous behavior was infectious, and the attendees all left the workshop excited to try some of his ideas in their classrooms. We briefly spoke about his class and his success in attracting students who might not otherwise sign up for the school's larger ensembles. He was excited to share how a few of the previous students from Jam Time have continued playing music in the school's concert band. These students were non-traditional music students who had little experience with school music programs, yet they developed interest in performing music through their experiences in Jam Time. Mr. H, who conducted South's concert band, jazz band and marching band, also spoke of nonformal music learning techniques used in his Jam Time classes, such as working in peer-selected groups and learning student-picked songs. We decided that the Jam Time class was a good fit for my research, and he agreed to help set up student interviews and opportunities for observations.

Students of all grades can elect to take the semester-long Jam Time class where they participate in four different popular music-based units. The first unit introduces students to playing basic drum grooves using bucket drums. The second unit is a small group rock band performance, where students form groups with their classmates using guitars and pianos. Students then pick a song to play from a list of popular 4-chord songs that Mr. H provides, mostly made up of pop songs from the 1990s and 2000s. The third unit is a full-class popular music band performance. Students vote for a song to perform, and they pick an instrument to play and practice their parts to create a large ensemble

rock/pop band. The final project of Jam Time is a unit using drumline and marching percussion.

Jam Time

Mr. H warned me that the students in his Jam Time class presented some behavioral challenges. He mentioned I might see students getting up to leave during their scheduled break time or a few students on their phones. He told me the students today would just be learning how to set up for their group performance and suggested I might come back another day to see the students in action. I replied that I was more interested in seeing a work-in-progress than a polished final product, and he agreed to have me observe.

The bell rang, and students slowly entered the auditorium where the class took place. A total of 22 students sat in small friend groups around the room, and Mr. H called out students' names for attendance. Most students had their phones out, and several did not respond when Mr. H called their names. One student stood up to walk out and was almost out the door before Mr. H asked where she was going, to which she replied she was going to the bathroom. After completing attendance, Mr. H instructed the students to put their phones away and explained how they would learn to set up the instruments for today's new project. The class was starting their third unit of the semester, in which the students worked together on the same song with their chosen/assigned instruments to create a large ensemble rock/pop band.

Earlier in the semester, the Jam time students had suggested songs for the group to play. Mr. H used a March Madness-style bracket where the students voted and chose

one song for their project. The class had learned bucket drumming and had previously worked in small groups to learn a popular four-chord song on guitars and keyboards. As a result of these previous units, Mr. H asked a few specific students to play guitar, bass, and drums for this song, then offered the rest of the class instruments on a first-come-first-serve basis with typically 1 or 2 students per instrument. To help the students pick instruments, Mr. H demonstrated each and then asked who wanted to play that instrument for the song. The first person to speak up got to play that instrument. Some students who did not choose instruments were assigned parts to play. Mr. H stated, “Some students get disappointed when they don’t get the instrument they wanted, but we make it fun, and they still have something cool to play, like the gong or the bass drum. Kids love the gong!”

With all the instruments assigned in the previous class, today’s focus was setting up the band. To start the setup, Mr. H called up three students, who set up the guitars, amplifiers, and drums, some of which were already on the stage from a previous jazz band rehearsal. The bassist was unsure which amp to use and tried to turn one on, but Mr. H quickly told him they were setting up right now and had them sit down once they had arranged their equipment correctly. Next, Mr. H called three girls to the stage, but only two walked up and helped move a marimba out of the band room next to the stage. He then called two boys to move a large xylophone, and one exclaimed that he used to play this. Mr. H excitedly asked the boy why he was not in the concert band, and the student just shrugged his shoulders. Mr. H continued calling students to help set up instruments, which included much of the concert band’s percussion section. This process continued

for the next 15 minutes as students added a bass drum, a vibraphone, cymbals, a gong, and chimes to the stage. One girl said she was unsure what her part was in this song. “Were you going to sing on this one?” Mr. H replied. The girl shrugged, and neither Mr. H nor the girl said anything further.

After the students set up the instruments, Mr. H called the guitarist, bassist, and drummer back to the stage and showed these students which chords to play and what the drums should sound like. The class had chosen “I Don’t Wanna Know” by Mario Winans, a popular R&B song from the 1990s. The group rehearsed a few times with Mr. H. playing the keyboard and looking over a piece of sheet music. When the guitarist struggled with an F chord, Mr. H told him, “You’re going to need to learn some of these chords on your own. Let me write down the chords for you.” After writing the chord names down for the guitarist, Mr. H brought out his phone and had the three students on stage listen to the song. Mr. H sang a simplified drum beat, imitating the kick and snare pattern, ignoring the hi-hat part of the song. He counted in the drummer, and she played the part perfectly on her first try, so Mr. H quickly moved on to help the bassist. Mr. H spent a few minutes playing the song slowly for the bassist until he understood the rhythm of his part. “So, this note lasts for 2 seconds?” asked the bassist, and Mr. H nodded affirmatively. When the bassist played his part correctly, Mr. H excitedly gave the student a high five and reminded the student, “It doesn’t need to be perfect. Just worry about where your fingers are. There are only five notes in the whole song.”

Mr. H sat back at the keyboard and rehearsed the rhythm section again before calling the marimba players to the stage. He showed the two girls how to play the song’s

bass line. The two girls struggled to remember the pattern, so he grabbed some tape and labeled which keys they needed to strike. He marked off the same keys on the xylophone, then had the two boys come up on stage and try it. The bassist quietly practiced his part while the guitarist and drummer sat patiently, waiting for Mr. H to tell them what to do. The remaining 15 students sat in the auditorium seats, staring at their phones. Mr. H had the four students playing the mallet instruments perform together. When the students started to speed up, he yelled, “Lento! You’re rushing! Lento, like when we played the bucket drums.” Slowly, more students joined the group on stage, such as the students playing the bass drum, the gong, and the chimes. Mr. H briefly showed them how to play their parts. Aside from the chord names written for the guitarist, the students had no written music to look at and learned all their parts by rote from Mr. H.

With Mr. H on the keyboard, the group rehearsed the song again. There were 14 students on stage, while another eight students were still sitting in the auditorium seats, as Mr. H had yet to call them, or they did not respond when he asked them to come up. The group tried the song again, and many of the percussionists had forgotten their part or needed clarification on their entrances. The cymbals and gong players looked at each other in confusion, and the bass drum player just started playing on all four beats. Mr. H stopped the group and exclaimed, “This was not a bad start today,” then asked students to put the instruments back in the spots from which they collected them at the beginning of class.

The students’ engagement level was varied, and it was apparent that some students, such as the marimba players and the drummer, were more excited about their

parts than the other students. The four students playing the mallet instruments laughed and joked while playing and communicated with each other to help learn their parts. The three rhythm section players were also excited about their roles in the group. They played their parts reasonably well after their brief practice at the start of the rehearsal.

Meanwhile, the concert bass drum, cymbal, and gong players were confused and seemed less interested in playing their parts in the song. Mr. H had quickly shown the chimes player which notes to hit but the student was never given further instruction or accommodations like the tape used for the mallet players. The student was left standing idly as the group rehearsed.

Additionally, several students remained in the auditorium seats for the entire period. The two students chosen to sing and rap in the song did not rehearse with the group. I spoke with Mr. H briefly at the end of the rehearsal, and he explained that a few students were absent on the day the students chose instruments. He mentioned they would be assigned parts next class before he rushed off to set up for an after-school rehearsal with another school music group. Unfortunately, I could not collect more data about Jam Time from Mr. H, as he was unavailable during my subsequent visits to interview students and further attempts at communication with Mr. H were unsuccessful.

Amari

Mr. H helped to identify students with various experiences and chose four students he thought would be the most outspoken, starting with Amari. Amari was in 12th grade at South High School. He had moved to the city from Uganda at the start of the school year and was the guitarist during the full band rehearsal. He has a strong

connection with his church, of which music is a large part. Amari joined the class with the hope of eventually helping with his church's music. His guidance counselor told him about Jam Time when he was choosing classes for the year, and he was excited about the opportunity to play drums. Amari's family is supportive, but they do not play any instruments, and his father does not place much importance on music. Amari told me, "...in my childhood, my dad wasn't really a musical guy. He didn't believe in music. He personally believed about, go to school, get good grades, and that's it. Better yourself through grades."

Jam Time is Amari's last block of the day, and I asked him how excited he was to come to class. He said:

Extremely! Extremely excited 'cause I know when I come from my other classes and come into Mr. H's room...um...I get to be myself here cause in most of my other classes I'm enclosed. Just do assignments, do assignments. But when I come out to Mr. H's class, I know...like... it's now just me and my instrument and I'm really free with it. It helps me to just keep on...I don't know exactly how to explain... it's just inviting and makes me happy to come to this class.

For Amari, Jam Time is a place to relax and take his mind off of other school concerns. I asked him what he would say if I were a new student looking to sign up for the class, and he replied:

After a long day of class and so on, having...like...a safe place to just come and relax and chill out and be free with yourself is really nice, cause you can come here and if you've...like...been having a stressful day, you can take out all your

anger on the instruments, leave it all there and really try to calm down, cause music is just something nice and soothing to me.

Amari frequently mentioned being passionate about music and how important it is to have a passion to balance his academic workload. His love of music had motivated him to practice in class, and Mr. H had often given Amari extra time to practice the drums, his favorite instrument. When asked what had helped him be successful in class, Amari said, “What has really helped me out is the time I put in because I mostly...most days I come in the back here [the band room] and maybe practice while other kids are out there [the auditorium].”

At the time of our interview, Amari did not have any strong connections with his classmates. During my first visit to the school, Amari had not spoken to any students in the class and only talked with Mr. H. He remained quiet on stage, never talking to his classmates, even during the downtime when Mr. H was working with other students. According to Amari, most students use the class as a free period and are not really into playing music. Yet, Amari stressed the importance of having a friend in the class. He said:

You can't really do anything alone 'cause playing an instrument is really hard, 'cause it's really frustrating 'cause it takes time to perfect something and...failing to perfect a specific chord can really put you down and you may try to give up about perfecting yourself. But having a friend by your side can always motivate you...um...to pick up where you left off and push yourself and go through with it.

While he may not have strong friendships with his classmates, he mentioned that he enjoys working with them. Sometimes, Mr. H groups students by instrument when working on songs, and Amari said that working with other students on the same instrument can be helpful when one student is more experienced. He said, “We really come together on whatever the challenge is and really conquer it.” Some students in the class are not engaged, so when he can, Amari tends to group with the students who are into playing music. Together, they “boost each other up,” and he said that working with students who are interested in music helps to motivate him to work hard in class.

Amari mentioned several times how important Mr. H had been in learning the instruments. When talking about Mr. H., Amari said, “He’s really an open person with all his students, so he helps us to get out of our shells and try to better ourselves.” Amari said Mr. H. had encouraged his learning and practicing outside of school and lent Amari a guitar and an amplifier from the school so he can practice at home. Amari was aware that he was a beginner on drums and guitar. Yet, despite his lack of experience, he said he felt very confident with performing in class, primarily due to the help from Mr. H. Amari said: “I’ll say I’ve gained a lot in a short period of time that would have taken me a long period of time just because of the ability he’s given me.”

Mr. H’s confidence in Amari’s engagement and ability to learn was visible when Mr. H relied on Amari to play the guitar part in the group song. Amari enjoyed playing one of the more challenging parts in the group performance and said he would prefer to practice more complex material. When asked to pick between learning a hard or easy song, he said:

I would take the difficult one 'cause it's always good to challenge yourself. So...um...it helps you better yourself. It may take you a while to get it but when you've learned the song really good and how to play all the notes and so on...um...you have gained a lot, instead of just getting a quick one and playing it and perfecting it.

Although Mr. H asked Amari to play guitar for the group performance, Amari said he never felt pressured to do something in a particular way in class: "I feel like we're just pushed to better ourselves, to really just build up what we already have inside of us and just get ourselves out there and perfect ourselves musically." Amari felt that the students have a lot of say in the class's direction. He said:

It's not all up to one person. I'd say it's all up to the students...like all of us in the class. We all make the decisions that are made in the class cause Mr. H would just be there to guide us, but he leaves all the rest up to all of us.

During my observation, Mr. H ran the class in a formal manner, similar to how a teacher might run a concert band, as he made most of the decisions for the group. However, Amari perceived that the students have autonomy in the classroom, possibly because he was able to choose what instrument to play and they all had the opportunity to pick a song to perform.

Jam Time has helped Amari build confidence that has spread outside of class. He mentioned he was introverted, but the class had helped him build confidence. When talking about Jam Time, he said:

So, it helps you to come out of your shell and just be out there. So, it helps me gain confidence even in my other classes, in case I'm called upon...like "Do this presentation. Do this and this." I already know how to get out there because I've been exposed to music.

At the end of our conversation, Amari shared that he has become more confident playing guitar and had recently begun to play at church. Jam Time had opened up more opportunities for engaging with music. He said, "It has really helped me out to come out there and explore what else I can do musically." While some other students might not be as engaged as Amari, the class had helped Amari pursue his passion for playing music and set him on a path for music participation outside the music classroom.

Beatrice

Beatrice was in ninth grade at South High School and was the drummer in the whole group performance. She moved to the United States from Brazil eight years ago. She explained that her family was very musical and listened to all types of music, but no one played any instruments. She briefly took guitar lessons a few years ago but said, "I play it...like...once a lifetime." At the beginning of the school year, Beatrice had enrolled in an architecture class but was on vacation and missed the first four days of school. She was shocked when she saw the large amount of work she had missed while away and quickly dropped the class. Her guidance counselor suggested enrolling in Jam Time, and the opportunity to learn new instruments sounded fun to Beatrice, so she signed up.

Beatrice's boyfriend had also enrolled in the class, so signing up for Jam Time was easy for her because she knew she would have a friend in class. When I asked her if

that was important, she said:

You feel more comfortable doing stuff and it's...like...you get...you feel more loose...that you have someone you can...like...joke with and talk to...cause it's kind of awkward when it's...like... you're the only person...like...I don't know...playing the instruments...I don't know... it's awkward being alone.

While Beatrice believed having friends in the class was important, she talked to very few of her classmates. During my first visit, Beatrice did not speak to anyone in the class other than her boyfriend Jordan and his friend Anthony. She patiently sat behind the drum set, waiting for her time to play. When I asked Beatrice how her classmates motivate her, she said that no one in class motivated her other than her boyfriend. She had a connection with some of the students, as many of her classmates are also Brazilian, but she did not have a high opinion of them. When talking about her classmates, she said:

Beatrice: I work well. I (strong emphasis added) work well, they don't. They're very...like... they're very inclusive...not inclusive...I don't know what it's called, but it's like...they only talk to their little friend group and they won't really talk to other people unless you...like...talk to them for a little, then they'll warm up to you.

Coyne: So, this goes back to that earlier question about having friends. Do you think it's important to have friends in here?

Beatrice: Yeah, 'cause it's like...a lot of people...like...they don't give you as much attention because you're not in their friend group. It makes you feel very lonely.

When asked how her classmates get her to do her best, she said, “They don’t really care.” However, her connection with her boyfriend seemed enough to motivate her to engage in class. She credited him with her success in class by pushing her to take risks. In one class, Mr. H set up the drums on stage and asked if any students wanted to try. Beatrice said:

I didn’t want to go up at all, but...like...my boyfriend and his friends were like, “Go Go Go” and I wasn’t gonna go. But when I went, I actually turned out good. So...like...just have courage to...like...try new things.

Despite the lack of strong connections with her classmates, her focus in class helped her make a minor connection with Amari, the guitar player. During an earlier unit, Amari approached Beatrice’s group, who had been working hard. Amari had noticed their focus and asked to join their group because they were not using the class as a free period. Later in the unit, when their group performed for the class, Beatrice said Mr. H told them they did great. She believed this was why Mr. H picked them for their parts in the whole group performance. “We did a guitar thing...like a...guitar unit and...I don’t want to say this...but me and Amari were like the only good ones that...like...knew what they were doing.”

Throughout our conversation, Beatrice was very confident about her ability to play the drums. When asked about any awkwardness around boyfriend and his friends, Beatrice said, “It’s not awkward, because...honestly... he’s really bad at instruments. Any instrument, he’s horrible at it and I’m good at it, so it’s probably awkward for him but not for me”. She had done well during the bucket drumming unit in class, which was another reason Mr. H picked her to play the drums for the whole group performance. When given

an option between learning an easy or hard song, she said:

If we had enough time, I'd rather learn a difficult song, 'cause I...like... I'm a very musical person, so I like challenges...like getting challenged with stuff like that.

So, I would rather learn the hard song and...like...get a lot out of it.

The confidence she gained through her prior experiences and the support of Mr. H had helped her grow as a learner. Her confidence also surfaced when she mentioned her father. She said:

My dad always wanted to play the drums, and he's like, "It just looks so fun," and I was like, "Yeah, it looks hard. I don't think I'll ever do it," but looking at it now, I know I can do it 'cause I never took any lessons and I'm doing pretty good.

Beatrice's father was the only family member that was mentioned during our conversation, and his excitement for her to participate in Jam Time was important to her.

According to Beatrice, Mr. H is "fun," "chill," and a "really good teacher." She described how he listens to his students, is open to learning new things from them, and how he tries to speak Portuguese to the Brazilian students. She said, "He doesn't speak good in other languages, but knows how to like...he knows some words.

He's...like...willing to learn, so it's good. It makes you feel very welcomed in his class."

She mentioned that he was unorganized and sometimes let the class do what they want because he needs to do work on his computer. When talking about her classmates and how Mr. H runs the class, she said:

Mr. H's talking and they're just like slamming everything and hitting everything, and Mr. H calls them out. He's like, "Guys, I told you guys to stop playing," and they... like...keep playing. So, it's like... he's kind of chill with that, 'cause most teachers would be like...like get really mad. So, he like...he lets us talk and play what we want.

Beatrice appreciated how the students have a say in the class decisions, but she said her classmates sometimes ignore Mr. H's directions.

Unfortunately, Beatrice does not own her own drum set, so she will not have an opportunity to play after the semester ends. She said Mr. H would probably let her stay after school to play the drums but she had not thought about it much. Still, despite the negative aspects of the class, Beatrice found enough interest and connection to keep her engaged. She mentioned several times that Jam Time is the only class she likes in school, and she looked forward to it every day.

Anthony

Anthony was in 11th grade at South and was very interested in music production. He took a music technology class during his 9th grade year and loved it, so he enrolled in it again as a 10th grader. He elected to take the class a third time as an 11th grader, but he was placed in Jam Time instead. When Anthony spoke to his family about being placed in the class, he discovered that his older sister had also taken it: "She was just telling me how fun it was, and it helped me be like, 'Ok, I can take this class. I don't have to switch out.'" Although it was not the class he signed up for, he was happy with the decision because Jam Time ended up being fun.

Anthony often mentioned a passion for music, which excited him to come to class. Music is an important part of his life, and he hoped music might be a career choice, although he was aware of how difficult it might be: “I know how hard it is to make it in music, so I’m doing it for fun because it’s a great way...a great hobby.”

When Anthony showed up for the first class, he was excited to see that one of his best friends, Jordan, had also enrolled in Jam Time. Having friends in the class was important for Anthony because making new friends can be challenging, especially since Anthony did not speak Portuguese like many of the students in class. The large number of English learners in the class made it difficult for Anthony to develop connections with some of his classmates. Still, he appreciated the diversity of the students in the class. He stated:

I would say it’s a great class. You get to meet new people from different...like...different backgrounds because I know some people over there that are Brazilian. Someone’s from, I think the Middle East...If you’re passionate about music and that’s one of your passions, then it’s a great way to learn how to play different ways...like bass, guitar, keyboards sometimes, drums, you know? Even without a large friend group in the class, Anthony had a strong connection with the few people with whom he worked, and he said the class was “chill” and that you can “just sit there and talk.”

Anthony believed that other students did not choose to enroll in the Jam Time. Yet, he believed they could find something fun even if they did not want to be there. Even though the guidance department placed students in Jam Time, he said, “They find

fun out of it cause...you know...like...they could...they find friends that might speak the same language as them, and they just hang out with them and play the buckets when we do it.”

Participating in Jam Time had helped motivate Anthony to make more music outside of class. He had started to teach himself to play the piano through online videos. When I asked him if the class had motivated him to make more music outside of the classroom, he said it had, and said, “It helped me think of...like...different ways to be creative, with like...the buckets...like not everything has to be like...the same as everyone else. You can be different.” In addition to learning piano, Anthony was excited to tell me that his family had joined a new church, and now he was singing in the church choir with his sisters.

I asked Anthony if the class was starting a new song tomorrow, would he want an easy, medium, or difficult song? He told me he would prefer a medium to practice. He told me:

For some people...like...they get... it’s hard for them, and some people might be angry more than others. So, I think in the middle, where some people can have easier parts and others can have harder parts, but it’ll still sound good. It would be great.

When I asked which part he would prefer, he replied, “I’d like medium because I would get so mad if it was hard.” When talking about practicing the piano at home, he told me:

Anthony: I enjoy it a lot. The only thing that makes me mad is when I’m doing something wrong. So, if I found...like...a chord that I can play, and I’m trying to

memorize it...like...I did it once or twice and then the third time I mess up... I'm like "Ugh" (slumps down in chair depressed). That's it. That's the only time I'm..like..mad.

Coyne: So why do you practice if you're getting frustrated with those chords?

Anthony: Just so like, in the future, when I want to make it a song, then I can just go and make it easily.

Even though he mentioned frustration with practicing, the repetition of exercises in the class was something that Anthony enjoyed. Anthony said that participating in Jam Time had helped him in other classes. He said, "It helped me just think that if I don't do it the first time, that's not the last time."

Anthony was one of the students who volunteered to sing on the group project. He told me he was also the singer in the previous small group unit. He was not very confident in his singing and had yet to even practice with the whole group despite our conversation taking place weeks after my observation. I asked him why he decided to sing for the both the small group and large group songs, and he replied, "Well, I've got to practice somehow." When I asked him about talking to more experienced classmates, he said, "I'm mostly watching. I'm a little nervous talking to people. I get a little anxious." Although he was tentative about talking to better players, watching them helped to motivate Anthony to keep working. He said, "There's some people who actually know how to play a little bit. So, seeing them do it is like 'Oh, so if he knows how to do it, I might be able to do it'".

During class time, Anthony believed that the students had equal control over the

class decisions, making the class feel “fair”. When picking instruments, Anthony said the students could play whatever they wanted and that everyone was happy with their choice. He said no one had seemed disappointed for not getting an opportunity to play a particular instrument, although he was stumped when I asked him what would happen if four people wanted to use the single drum set in the classroom. As the band’s singer, Anthony had always had the opportunity to play the instrument of his choice and had not experienced disappointment from not getting the instrument he wanted. Anthony was also the student who suggested the song that the class eventually picked for their performance, so he had numerous positive experiences in class. Anthony might not have been aware of his classmates’ level of excitement or disappointment with the instrument and song selection.

During our conversation, Anthony rarely mentioned Mr. H. He described how Mr. H taught the class as “fun, entertaining, exciting.” He had not known Mr. H previously but felt pretty connected with him due to Jam Time. When discussing the importance of having a friend in class, Anthony mentioned that Mr. H was very friendly and could be a friend for a new student who might not know anyone. Anthony never mentioned any specific ways that Mr. H might motivate the students. There was no mention of extrinsic rewards or controlling behaviors that Mr. H might employ.

Jordan

Jordan was in 10th grade at South and was one of Anthony’s best friends. When I visited the class for observations and interviews, he sat with Anthony and Beatrice in the auditorium. Jordan attended a regional vocational school as a ninth-grade student but

transferred to South during his tenth-grade year, and he was unable to pick his classes. As a result, the guidance department placed Jordan into Jam Time. He told me his only other experience playing instruments was with the recorder, and his mother was surprised when he told her about the class he was taking. He said:

I like, told my mom. She was like, “Oh really?” Like, she was surprised that I was in the class, but I was like, “Yeah, it’s actually like, I actually like it.” And she’s like “Oh, that’s really weird ‘cause you haven’t been doing music like, in a year.”

His family did not play instruments, and Jordan told me that banging on the kitchen counter was the extent of his music engagement outside of Jam Time. Despite having little initial motivation to play music, Jordan loved attending class. When describing Jam Time, he said, “It’s just something peaceful. It like, takes away all the stress from school. You come into the class and it’s like, pretty fun.”

Jordan told me he was very connected to his classmates. When talking about how well he works with them, he said:

I think I work pretty well. I like, get along with everyone. I never got like, no one’s ever had an issue like, the whole class together. In the whole class like, no one laughs at each other if someone gets it wrong.

I asked him about playing music with the students in class who were not his friends, and he stated:

I was a little nervous with like, cause I didn’t know anyone except for like two people. And then I was nervous. I was like, “Oh, I wonder if they’ll laugh at me, blah blah blah,” but I’m like ‘stuff happens.’ And then, as you get through it, no

one laughs. Everyone makes mistakes. Everyone makes mistakes. Everyone's normal, so I felt good.

Jordan valued having friends in class and said his classmates would help him when he was unsure of what notes to play. Observing his classmates also helped motivate Jordan to work harder in class. He mentioned, "I see everyone's getting used to it, and I'm like, 'Oh, I really got to step up my game and, like, get with the class' 'cause, like, sometimes I feel behind, and then around me, I got the rhythm. They really help me."

I asked Jordan what he might tell me if I was a new student looking to sign up for Jam Time. He replied, "I would say 'definitely.' I mean, he's a good teacher, and it's a good class. He's like, he works with you, it's pretty good. He's a good teacher." Jordan mentioned Mr. H a lot during our conversation. For Jordan, Jam Time was a good class, even without Mr. H., but he valued Mr. H's work with the students. "Mr. H is just like an amazing teacher to me. He's one of my favorite teachers, so it makes it even better having a good class with a good teacher." Jordan believed that Mr. H was the reason for his success in the class: "He works with you, like...whenever you need help, or he'll take the time to go one-on-one with you. It's amazing." According to Jordan, Mr. H ran the class at a "perfect pace" and took time to ensure everyone knew their parts.

Mr. H's connection with his students was an important part of Jam Time, as some students do not get to play the instruments they had hoped for. Jordan told me that sometimes his classmates get upset and no longer participate, but Mr. H can get them to engage: "He doesn't get mad at them, which I like. He just, like... he's understanding. But then he, like, tempts them. He, like, jokes around with them, and then they actually end

up playing, which is pretty good.” Jordan wanted to play the bass guitar for the whole group performance but ended up playing the marimba. I asked Jordan if he was disappointed, and he said, “I understand. Everybody wants that instrument... it’s a bummer when you can’t get your thing. But, it’s something new.”

Despite having little prior musical experience, Jordan seemed relatively confident in his abilities but mentioned he had struggled at times in class. I asked him about learning a new song and what difficulty he would prefer. He replied:

I like to, like, build my way up, so I would never start with just easy. I would like to start in-between, and then once I’m like used to it, ‘cause if I go straight to like difficult, I feel like I would be there for like hours, ‘cause it’s happened. He picked a difficult note one time on the guitar, and I was like, struggling for days how to play it. It was pretty hard, moving my fingers and all that.

While he struggled with one class project, Jordan’s difficulty with playing the guitar did not keep him from engaging in future units. He had hoped to play the bass guitar for the whole group project and was interested in learning something new, such as the marimba. Jordan’s easygoing demeanor and openness to try new things helped him succeed in class.

Despite his enjoyment of the class, Jordan gave the impression that Jam Time was just another class during the school day, albeit one of his favorite classes. He was the only student I spoke with at South who made no mention of engaging with music outside of school. At the time of our conversation, the class still had a few weeks left before the end of the semester, so there was still time for Jordan to develop a stronger interest in

music-making. Despite his lack of intrinsic motivation to make music, Jordan still found the motivation to engage in Jam Time, finding it fun. Jordan was an example of a student who might find enjoyment in a class such as Jam Time when there was no initial interest in playing instruments before enrolling.

Within-Case Analysis

Within-case themes that emerged from the data pertaining to South High School were 1) connections; 2) amotivation; 3) freedom; 4) autonomous regulation; and 5) formal teaching. These themes help paint a picture of the varied levels of student motivation and BPN satisfaction in Jam Time.

Connections: “Two heads are better than one.”

The first emergent theme was the importance of developing connections within the class. When students build connections with classmates and teachers, they support their need for relatedness, the strongest contributor to more autonomous forms of motivation (Niemic & Ryan, 2009). For Jam Time students, their engagement level was connected to who they received relatedness support from. The students with connections with more engaged peers were more motivated to participate and often sought out similarly motivated students to work with. Beatrice, Anthony, and Jordan were all friends, shared positive feelings towards Jam Time, and were highly motivated. Meanwhile, the unengaged students developed connections and found relatedness support from similarly unmotivated peers, encouraging the students to continue their low level of engagement. Mr. H’s choice to ignore these students helped reinforce their low motivation by allowing them to build connections with similar students who did not want

to engage. Amari was an outlier, as he sought out other motivated students in class, yet he had not developed any meaningful connections with any of his classmates. Still, he had developed a strong connection with Mr. H who seemed to adequately support Amari's relatedness needs.

The structure of Jam Time inhibited the growth of student-to-student connections. While Mr. H incorporated some aspects of informal/nonformal music learning, such as allowing students to choose instruments, he taught more formally. Students relied on him to learn how to play their instruments and what notes to play for their group song. Students had limited time to work with peers to teach themselves their music, which would have created opportunities for students to build connections with their classmates. With less connection building, students received less relatedness support from their peers. Engaged students, such as Amari, were allowed time to work independently in a separate room, inhibiting interactions between classmates.

According to SDT's student-teacher dialectical framework (Reeve, 2012), a student's learning environment, such as their relationship with the teacher, influences the quality of the teacher's motivation style. As a result, the teacher's motivating style influences the student's engagement level, shaping the student's learning environment. This reciprocal relationship between students and teachers was evident in Mr. H's connections with students and his influence on their motivation. Mr. H's autonomy-supportive actions towards motivated students, such as Amari and Beatrice, helped him develop stronger connections with his students. As a result, the more motivated students became more engaged, and Mr. H spent more time connecting with them. In contrast, the

less motivated students were ignored, had fewer opportunities to connect with Mr. H, and were less motivated than their peers. Mr. H's lack of interaction with the unengaged students created an unmotivating environment for several students in Jam Time. When these students did not engage, Mr. H perpetuated their lack of motivation by engaging with them less.

Amotivation: "People are just not gonna want to do stuff."

The lack of engagement from some students was another theme that emerged from the data. All four interviewees mentioned that some classmates did not want to be there and treated Jam Time as a free period. Lack of student engagement can be connected with controlling teachers and psychological needs frustration (Reeve, 2012), indicating that many students in Jam Time needed more support from Mr. H to satisfy their basic psychological needs. As mentioned previously, many of these students lacked relatedness support in Jam Time. Mr. H's lack of interaction with the unengaged students further encouraged their disconnect in class. His controlling teaching methods, such as how he taught the group song, limited his students' opportunity to build connections by relying on him to learn, rather than working with peers to learn their parts.

In addition to the lack of relatedness support, students' BPN satisfaction was thwarted by having been placed in Jam Time by the school's guidance department. Students are more likely to experience high levels of interest and enjoyment when selecting a class than when placed in one (Black & Deci, 2000). The guidance department placed three of the four interviewed students into Jam Time, so it is likely that more students in the class were not there out of personal choice. One drawback of the

interviews was that Mr. H had picked the more motivated students to speak with me, possibly to showcase his class in the best possible light. I did not have an opportunity to speak with unengaged students to determine if they had been placed in class or elected to enroll in Jam Time.

Freedom: “He lets us do what we want, but...not that much.”

The perception of autonomy support is important, as students with perceived autonomy support show increased competence and interest in classes (Black & Deci, 2000). The engaged students in Jam Time appreciated the freedom they were given in class, such as picking songs and choosing instruments. Mr. H provided opportunities for students to express their ideas and choices, which was likely more than the students would receive in their other classes at South. The more motivated students of Jam Time experienced more opportunities to experience autonomy support from Mr. H. Motivated students, such as Amari, were given more autonomy and had opportunities to practice instruments separately from the rest of the class. Similarly, Anthony’s motivation was increased through the support for autonomy he experienced during Jam Time. He volunteered and was allowed to sing the group song, and his song suggestion was chosen for the group performance. Anthony had not experienced much frustration with his need for autonomy and, thus, was more engaged in class.

However, the students had little autonomy in the class besides song and instrument choice. Mr. H relied on formal teaching methods that limited the amount of student-directed learning. He produced the arrangement of the group song, pre-chose which instruments the group would use, and selected more motivated students to play

specific instruments for the performance. The students had minimal voice during the rehearsal process. Still, Amari mentioned that Mr. H was not controlling and was open to the students teaching themselves. More opportunities to experience autonomy may have happened in previous units. If students in Jam Time perceived increased autonomy from Mr. H, they would be more likely to engage in class, even if they were not provided with many autonomy satisfaction opportunities.

Autonomous Motivation: “I really got to step up my game.”

BPN satisfaction is needed to develop the intrinsic motivation to continue playing music in and outside the classroom (Evans, 2009). The motivated students, those who had received autonomy support from Mr. H and experienced autonomy and relatedness satisfaction in Jam Time, had begun to show BPN satisfaction. Motivated students, such as Amari and Anthony, continued engaging with music outside of class and credited their experiences in Jam Time for helping build their confidence. Meanwhile, Jordan and Beatrice had little engagement with music outside of the classroom, indicating that they had not developed the intrinsic motivation to engage with music beyond Jam Time. Future classroom projects and interactions might help Jordan and Beatrice develop the intrinsic motivation to pursue music-making outside of school.

Several interviewed students had been placed in the Jam Time, and unlike Amari, did not have the initial intrinsic motivation to learn an instrument. Still, they had learned to enjoy the activities and Jam Time was mentioned frequently as “fun” and “a great class” during the interviews. These students had begun to internalize the values and aspects of the class and move towards more autonomous forms of regulation. For

example, Jordan had little experience in playing music before his placement in Jam Time. His motivation to work harder could have come from introjected regulation, as he might not want to be embarrassed in front of his friends. However, Jordan mentioned that no one in the class made anyone feel bad about making mistakes, so Jordan's motivation did not seem connected to avoidance of embarrassment or shame for poor performance. His motivation stemmed from integrated regulation, where he would be more concerned with his role in the group's performance and success. Similarly, Anthony's commitment to singing, which he had little experience with, demonstrated his motivation through identified regulation. He was uncomfortable as a singer, but knew it was an important part of his path to becoming a better musician.

Seeking out optimal challenges is a component of competence satisfaction. Interestingly, when I asked the interviewees about choosing songs to play based on difficulty, the students chose difficulty levels connected to the level of autonomy support they received from Mr. H. Beatrice and Amari were shown more autonomy support from Mr. H, were more engaged in class, and wanted to learn something difficult. Anthony and Jordan had less support from Mr. H and wanted songs of medium difficulty. By providing autonomy support in class, Mr. H could help fully support his student's BPN, allowing students to internalize the values of the class.

Formal Teaching: "He doesn't want anyone messing up or not knowing what they're doing."

When comparing the teaching methods used in Jam Time, Mr. H incorporated nonformal learning less often than formal music learning. The students had limited

opportunities to apply Green's (2002) characteristics for informal music learning. For one project, the students selected music to learn, although only one student's suggestion was chosen, and their instrument choice was limited. While the learning process combined listening and performing, the music was not learned by copying recordings or student-directed group learning. Students relied on Mr. H to learn the notes, performed the music exactly as it was taught, and had little room for improvisation or personal creativity. By incorporating more nonformal music learning techniques, Mr. H might be able to increase student motivation. For example, by allowing students to learn songs in student-directed groups, he would provide more opportunities to build connections with classmates, supporting their BPN.

Some students, such as Beatrice and Amari, listened attentively and played their parts as well as possible but spent most of the class quietly waiting for Mr. H to tell them what to do. The expectation from Mr. H for the students not to play their instruments until being told to do so eliminated the opportunity for students to explore their instruments. Most students were new to the instruments they were using and most likely did not know many songs besides those Mr. H showed them. These students could benefit from additional time to experiment with their instruments, helping to increase their confidence and find support for competence. While there were plenty of times for students to play and practice, most students did not touch their instruments during the downtime. Students were only given one or two attempts at playing their parts before Mr. H moved to the next instrument. As a result, students quickly forgot their notes and did not engage or hit random notes when the full group rehearsed. The formal structure of the

class eliminated opportunities for students to improvise, experiment with, and enjoy the instruments they were chosen to play.

It should be noted that I was only able to observe one unit from Jam Time. It is possible that students engaged with nonformal music learning practices in other units, such as the four-chord song unit that students engaged with prior to the large group ensemble unit. In our conversations, the students only mentioned the previous projects in reference to learning instruments. For example, Jordan mentioned he had difficulty with the guitar from a previous unit, and Beatrice's strong performance on the drums had led Mr. H to assign her the drums for the large group performance. There were no comments on the learning structure of the previous units. The final unit of the semester was a drumline unit.

CHAPTER FIVE: WEST HIGH SCHOOL

West High School is in a large city in the northeastern United States. At the time of this study, the school served a predominantly low-income population, with over 80% of the students listed as low-income and 88% as high needs². The population was a majority (52%) of Hispanic/Latino heritage, and 66% were learning English as a second language. The school was primarily known for its strong sports programs, as its basketball team recently won the state championship in their division.

While West's sports teams were strong, the instrumental music program had been almost nonexistent. During my observations, the music teachers told me an arts magnet high school in the city had garnered most of the focus for arts education within the district. Mr. K, West's instrumental music teacher, previously taught at more affluent schools and charter schools in the same city before coming to West. Before Mr. K, West High School had been through 5 music teachers in 4 years. When the position at West opened, Mr. K switched to West because it allowed him to build a band program from the ground up. Previous teachers could not sustain interest in an instrumental program, so the band program at West disappeared. The move to West also allowed Mr. K to work with underserved students, who did not receive the same music education as the students in the city's more affluent schools. Mr. H noticed the West students were just as eager to play and perform music as the students in his former schools.

In the first year of Mr. K's concert band class, 23 students of various ability levels

² I retrieved this information from the school's websites and their profile on the state's Department of Education website. I have not provided the URLs to maintain the school's anonymity.

and instrumentation signed up. Mr. K quickly understood that his students, many of whom had never played an instrument before, would not be excited to perform standard concert band material or practice exercises from a method book. Mr. K had no training in popular music pedagogies, but he was familiar with incorporating popular music from some reading assignments in his master's degree program from a local university and decided to use music that connected with his students' musical interests. When I asked Mr. K why he teaches the band with popular music, without relying on traditional concert band material or requiring all students to read western music notation, he said:

The purpose of being in a performing group is to perform, to get to experience the purest sense of the word joy, with regard to performing a piece of music alongside a group of musicians, all communicating with each other, regardless of where they are from, and what language they speak. What would be the point of me cramming *Russian Sailors Dance* down the proverbial throats of a bunch of teenage musicians that just want to have fun and experience playing music with each other? By playing rock, pop, and culturally relevant music, the students are engaged and excited. I have a huge Hispanic population here at West. When we play Salsa, these students come alive...why would I want to mess with that? So, I embrace it and learn from it. They are my teachers; I am merely their guide, figuring out how to collaborate with each other.

With that in mind, Mr. K worked to develop original classroom materials by transcribing popular songs and arranging student compositions in ways that his students could find success. As enrollment grew, he assigned veteran students as section leaders who took on

a larger role in helping the less experienced students learn the parts of the various. At the time of my research, the program was in its third year and had gained much attention at West, as its enrollment had almost tripled with 66 students. The band consisted of seven instrument sections: strings, clarinets and flutes, saxophones, brass, keyboards, guitars, and drums.

While some students, such as the guitarists, owned their instruments, most students borrowed instruments that had been purchased by the school, donated to the school by residents, or passed down when the music department purchased new instruments for other schools. Students can borrow any instrument the school has for free and are only responsible for the instrument's maintenance. Several keyboardists and drummers do not have instruments at home and can only practice and play music during class time. As a result, some students sign up for more music classes with Mr. K to give them more time to play their instruments.

For lack of a better name, Mr. K's band class was called Concert Band but did not perform standard concert band repertoire. In previous years, the group had performed songs such as "Happy" by Pharrell Williams, Blinding Lights by the Weeknd, and "Seven Nation Army" by the White Stripes. The students picked the songs and Mr. K arranged the pieces. He printed out parts for all the instruments, but he told me that most of the students learned by rote or from their section leaders showing them what to play. When teaching new songs, Mr. K will have the class break into sections, and he will bounce between sections to help students, particularly the section leaders, learn their parts. This might involve showing them finger placement or singing their parts so

students can hear what they need to play and then letting the students find the notes on their instruments. He said he relies on the section leaders to ensure the students have learned their parts but often he will have to stop the larger group rehearsals to review notes with certain sections, similar to that of a formal concert band director.

To help them learn the songs, Mr. K gave students sheet music with the letter names on it, tablature for the bassists and guitarists, and chord names for the keyboardists. Depending on the song and the overall volume of the group, the guitarists and keyboardists might play part of the melody in place of chords. Beginner players were given the same parts as the more experienced students and are encouraged to play only what they can, such as particular notes that might highlight the harmonic rhythm of the song, until they feel more comfortable playing more notes.

Concert Band

I arrived at West High School a few minutes before class began and spent some time helping Mr. K set up the auditorium stage for the upcoming band class. Chairs and stands need to be set up and taken down every class to make room for the other groups that use the auditorium stage during the day. A few students were already hanging around the auditorium before the end of the first period. Mr. K asked one student, Justin, to ensure the keyboards and guitar amps were all plugged in. Justin gladly moved to check the equipment and played little bits of songs as he checked each amplifier and keyboard. As the bell rang to transition to the next class, the band students quickly filled the room and grouped with friends. Some students carried instrument cases gathered from another room off the side of the stage, while others rushed to the keyboards and drum sets that

were set up along the stage's back wall. A small rack at the front of the stage held music folders and a stack of sheet music. Only a few students, primarily violinists and clarinets, stopped to grab a folder along their way to their seats.

Mr. K's experience as a concert band director showed in the band's stage arrangement, as students sat in three rows of instruments, grouped in sections, in front of the line of drummers along the back of the stage. However, the sound from the stage revealed quickly that this group was not a standard concert band. Music erupted from the stage almost instantly as the students entered the room. Two drummers started playing similar backbeat rhythms on the drum sets arranged against the back wall, and soon, a third and fourth drummer joined in. Two boys with guitars quickly set up and plugged in, followed by two girls with guitars, a boy with a bass guitar, two more boys with guitars, and another girl with a guitar. Three students sat down at the collection of keyboards as the group's volume slowly increased. A student wearing a Guns 'n Roses t-shirt set up a bassoon while the student behind him warmed up on a baritone horn. The front row of the stage filled up with flutes, clarinets, and string players. Amid the cacophony, Mr. K helped tune a few violins and told me they were preparing for their first concert in a few weeks.

After about 10 minutes of setup, warmup, and jamming, Mr. K waved his arms, and the band slowly stopped playing. He told the students, "Play the first notes of Justin's song," and gestured to a set of large letters on pieces of paper taped to a rolling chalkboard that spelled out a minor scale. The entire band was attentive and quickly began to play the displayed notes, although most of the group had the order of the notes

memorized. The large rhythm section provided an accompanying backbeat while Mr. K gestured for the band to move from note to note.

Mr. K asked the group if anyone wanted to solo, and after seven or eight students raised their hands, the piano player started the song. Justin, the song's composer, played a merengue rhythm on the piano, and after a short introduction, the remaining members of the rhythm section joined in. The rest of the band followed, playing the warmup scale but with some added rhythmic variations. Some students seemed slightly confused, and Mr. K stopped the group and sang how the part should sound. The band started back up, and Mr. K directed students when to start and stop their solos and cued the band to reenter with the tune's melody. The level of engagement was high, and every student was visibly enjoying the performance. Students were physically moving to the song in their seats, and one late-arriving student danced across the stage to hand Mr. K a pass, then continued dancing around the stage until he found his spot at a keyboard.

After Justin's song finished, the rhythm section was quiet for a few seconds before they erupted into a loud, chaotic jam session. After a minute or two of taming the drummers and guitarist, Mr. K told the students to take out "Sky Full of Stars," a song by the pop group Coldplay. As noted earlier, Mr. K allowed the students to decide which songs to perform, and then he arranged the songs for the group. The students chose this particular song because it was in the animated movie *Sing*, which most students had seen.

The violinists, clarinetists, and flutists pulled out the sheet music for the song, although most students in the group had no sheet music on the music stands in front of

them. After reviewing some parts with the violin section for a few minutes, Mr. K tried to pull the rest of the group back together. The downtime created by working with a section of students started to affect the overall engagement of the band as the rhythm section erupted again, and a few students pulled out their phones. When the drummers quieted down and the students had put their phones away, Mr. K warned the guitarists to turn down and use light distortion. The band started playing the song but quickly stopped when some students missed the melody entrance. Mr. K sang the melody part, started the song again, and then cued the melody entrance with a loud “1 2 3.”

When the song stopped, Mr. K told the section leaders to review the new part. Several students quickly turned to their neighbors and started discussing the song. Not long after, a few students returned to staring at their phones, and the guitarists began playing random riffs from popular rock songs. One of the keyboardists, Alijah, started playing the intro to “Seasons of Love” from the Broadway musical *Rent*, and the drummers quickly joined in. Mr. K gave Alijah an exasperated look, then looked at the time, noticing the period was almost over. As the class neared its end, he allowed the impromptu jam to continue as more students joined.

Soon, students started packing up their instruments, and as the bell rang, the musical jam showed no sign of slowing down. Kids slowly left the room, saying goodbye to Mr. K, who had an engaging and calming relationship with the students. He patiently listened to each student’s question and told a few he would call them to the music room later. Finally, Mr. K ended the jam, and the drummers headed off through the side stage door. Alijah, the keyboardist, slowly walked up and lingered a few minutes longer to talk

with Mr. K about music ideas until Mr. K gently directed him toward his next class.

The engagement level in the class was high, and the one constant throughout the observation was Mr. K's difficulty in getting the students to stop playing. The band's setup may have taken 10 minutes, but the students were seated, had instruments in their hands, and played music almost as soon as they walked onto the stage. While there were times when students were distracted by their phones, their distraction came more from boredom, as they seemed to already know their parts and were waiting for their chance to play again while Mr. K worked with other students. They respected Mr. K and were not playing while he worked with other sections, unlike some guitarists and drummers who took every opportunity to play their instruments.

Most students did not rely on sheet music and easily found ways to join in with the continuous jam sessions from the rhythm section. The reed players (except for the saxophonists), string section, and low brass were the students who relied more on reading sheet music and were the first to pack up their instruments at the end of class. The students playing by ear, such as the drummers, keyboardists, and guitarists, were the ones who would not stop playing after the class had ended and were the last students to leave the stage.

While the band performed popular music and incorporated some informal music learning techniques, such as learning by rote, much of what Mr. K did in the classroom was similar to that of a standard concert band teacher. Mr. K conducted the group, instructing the students on what to play, how to play, and when to play their songs. At times, the students were expected to sit quietly while Mr. K worked with a specific

section, and ideally, would only play their instruments when they were being told to by Mr. K. Yet, a large portion of the rhythm section continually used this time to jam. The band students chose which songs to perform, but they still relied on Mr. K to teach the material. The students often had chances to work with friends, but only if their friends were in the same section that they were in. The impromptu jam session was one of the few spots where students were completely in control of what was being performed, and I was left wishing there was more of this type of student-led music-making during the observation.

The following week, Mr. K helped choose students to interview, and he seemed unconcerned with which students I spoke to. Most of the students were chosen out of convenience, as they were hanging around Mr. K as we were speaking. Some of the students, such as Alijah, the piano player who initiated the end-of-class jam session, were already rehearsing when I showed up to conduct the interviews, so Mr. K had me speak with Justin first.

Justin

Justin was a senior at West and the piano player who composed the first song the band practiced during my observation. He has played piano outside of school for years and had been telling Mr. K he would sign up for the band for the past year. Justin was unable to fit the class into his schedule the previous year but was finally able to enroll for his senior year. I met with Justin in the auditorium while section leaders in the class worked with their smaller groups around the stage and in various classrooms. Justin's intrinsic motivation to make music was evident from the class observation and became

clearer through our conversation. Justin grew up playing a lot of music outside of school before joining Concert Band. He said:

So, I grew up in a church, and I'm still in church now and I've always been a musician at my church. I never learned...like...from somebody teaching me. I've always... like...seen people playing and I would always hear...you know...how the music would form, how it would sound. So, like...I always learned by hearing, not by...like...people teaching me.

Justin was the student Mr. K asked during my observation to set up the instruments before class began, and he visibly had fun checking the instruments and jamming with the rest of the students once class started. West's band class meet during the second period of the day and when asked if he gets excited to come to the band when he is in his first-period class, Justin replied:

Justin: YES! Of course I am. Of course I am.

Coyne: Why?

Justin: It's the best cause...I just like...when I'm in class and...I HAVE to play music cause I won't stay still. I just have to play music. I think about it. I just have to. It's part of my life.

Justin mentioned that his family knew he wanted to sign up because they understood the importance of music to him. He had previously taken a piano class with Mr. K before joining the band program and had developed a connection with Mr. K.

Besides his intrinsic motivation for playing music, Justin signed up for the band to be around other students and musicians. He showed a strong desire to help other students

and be an important group member. Justin believed that Mr. K's band class was where he could be a part of something fun. When talking about joining the class, Justin said:

I wanted to help out and do something, be part of this...you know...this community [Mr. K] has going on. And I like it a lot. It's pretty fun, and I like learning more music. I love...love helping others. And I like showing others my talent.

Justin's role as a section leader for the piano section allowed him to assist those around him. He quickly mentioned that he would work hard to befriend new students and introduce them to other band members. His willingness to help new students was unsurprising, as Justin was very social during the observation and our conversation. He waved, clapped hands, and spoke with several students who passed by our seats in the auditorium.

When asked if having friends in the class is important, Justin replied with an overwhelming "Yes, of course!" He believed it was the most essential part of having success in class: "it's important to connect with each other and build relationships with each other so we can all learn, all have fun, all respect each other." In addition to making class fun, Justin's friends helped him grow as a musician. Paul is one of the drummers in the band and has shown Justin how to play several songs on various instruments.

When talking about Paul, Justin mentioned:

He plays everything. He's disgusting. Yeah he's...um...he taught me a little bit of...like...the bass...um...taught me a little bit of the songs on piano. I definitely gotta give thanks to him for motivating me so I can motivate others as well.

Friends were an important part of class for Justin and added to his engagement level in band. The group provided an opportunity to showcase his musical skills as well as provide a rewarding social opportunity.

Justin credited Mr. K with a lot of his success in class. When asked Justin about something that has helped him be successful in class, Justin said, “Probably Mr. K himself. He’s given me advice...he would tell me...you know...like...he makes me feel...like...I could help...like...a lot of people.” Justin played multiple instruments and felt that Mr. K would let him practice on an instrument other than the piano if he wanted to. He said:

In general, in band class, he would want me to play just piano because...cause like...if not...if the music was sounding like...you know...a little off.. but he’s like a little strict with me with that. But it’s fine. I understand that but like...if I want to take my time...like...then I would...like...tell him...like ‘Can I go in a room or play a different instrument?’. He’ll let me. He’ll let me learn it and let me just play, you know, anytime.

Besides mentioning how Mr. K can be a little strict, Justin rarely mentioned any controlling behaviors that Mr. K might use to motivate students. He said Mr. K gets angry because sometimes the band students do not listen, but Justin never talked about any rewards or punishments that Mr. K might use to motivate the band or push them to act a specific way. Justin felt that he could voice his opinions in class and that, as a section leader, he had some control over which direction the band moved.

Justin was competent enough in his abilities to be willing and ready to help his

classmates. He stated, “I’m that person that can...like...he can depend on to help others in class and to...you know...build up...you know how it works.” Justin’s confidence with piano fueled his desire for challenging material to work on in class: “I could learn a lot more from that...um...and it’s just better cause it would help me in the future more, for other hard things that come up.”

Justin felt that his participation in Concert Band had a positive effect on him that lasted throughout his other classes. He mentioned:

I go to other classes and after this class, I feel like...after this class, I have joy. And I go to other classes and...um...I have a lot of energy, you know. Music just...like...runs through my head, runs through my body, everything. So, you know, I’m just like...I have that music spirit in me, you know.

Justin’s energy and joy were contagious and spread to other students in the Concert Band. As the interview ended, he quickly ran on stage to talk with his friends in the keyboard section and joined in on their rehearsal. With Justin back on stage, the sectional rehearsal quickly took shape, and loud music quickly erupted from the students in his section.

Alijah

Alijah was the piano-playing student who strolled in late and danced across the stage during the performance of Justin’s song. He was an easy-going 10th grade student who was also the instigator of the end-of-class jam when a large portion of the band started performing an up-tempo, raucous version of “Seasons of Love”. He was reluctant to stop playing and leave his piano for the interview but finally gave in to my request. For

our entire conversation, he was repeatedly distracted by the noise coming from the rhythm section that continued to practice on stage. He frequently banged his hands on the chair in front of us along with the beat of the music and was eager to get back to working with his friends on stage.

Like Justin, Alijah had a clear intrinsic love for music-making. He smiled, danced, and laughed constantly while playing and had a hard time stopping playing, even when asked several times by Mr. K. Alijah came from a family of musicians but did not give much detail as to what they played or if they motivated him to play music. Alijah was in his second year in band class, and he told me he initially signed up for band because his older friend forced him to. He said:

It was like his last day...like last year to do band, so he was like, "Alijah, just play this year," and I'm like, "You know what...fine, 'cause I miss music. You know music's fun. You know what? I'll do it." So, I did it for last year and I'm doing it this year too.

He played saxophone that first year in the band but switched to piano this year, which positively impacted his attitude towards the group. While he might not have enjoyed being in the band as much during his first year, he mentioned several times how he loved this class. Participating in Concert Band as a pianist this year helped Alijah build more motivation for music-making. He stated:

Before, I was gonna quit band...cause like...band...I didn't have a lot of motives for band. I like playing for people, but I always play by myself, so it was kind of annoying playing only solo. I just played for fun, as a hobby. But now I've been

actually...I actually, like...threw away the hobby and actually wanna play,
like...for my career.

Alijah often answered questions with a rating scale from one to ten, with ten being the best answer. For example, when asked about his confidence on the piano in class, and he replied, "Ten out of ten. Breaks the scale." Meanwhile, Alijah rated his history class as three out of ten. Regarding his excitement to come to Concert Band rehearsals, Alijah stated, "It's gonna break the scale again. I love band class." Alijah may have initially enrolled in the band due to pressure from a friend, but his friend graduated and is no longer in the group. He continued in the band this year because of his love of music-making, which grew from the opportunity to play piano.

Even though his passion for playing piano was very noticeable, the social component of class tied Alijah to the band. Like Justin, Alijah pointed, nodded to, winked at, and smiled at over a dozen students who walked by us while we spoke. When asked why it is important to have friends in the class, he mentioned:

You know, so y'all can just hang out and talk it out...cause, like...if you do a solo, it makes things sound off...weird. Let's say I'm playing something...communication is key in this class...because, like...if there's no communication, it would just be weird and, like...it just...it would just break down.

He visibly had a strong social connection with most of the students and said felt very connected with his classmates. Alijah enjoyed the group dynamic in the band and the opportunity to perform with other students.

Alijah did not seem to care how difficult a song the band played as long as he was a part of the group. His joy of playing music was evident in his willingness to follow the group's decisions and perform what the group wants to perform. He said:

I just play fairly. If you wanna play that song, I'll play the song with them. I'm not ever like "Oh I'm playing this. You play that." you know what I mean. I play fair...so like...I love the drums and everything...so I like to play as a band, as a group. I love this group.

The way Alijah spoke of and interacted with his classmates was another example of Alijah's connection with the group. He did not directly talk about helping others or making personal connections with specific classmates, but he did mention how difficult it can be for less experienced students. During one of the sectional breaks, when he was not trying to instigate another jam session, Alijah was showing another keyboardist what chords to play. Even though Justin was the section leader, Alijah still took time to help those around him. He was quick to tell me he would help out a new student looking to sign up for Mr. K's class: "I'll make things happen, like...If you're really committed and you really want to join the band class I would help you out and make sure you, that you'd be up on the stage where I am."

Mr. K was another essential part of Alijah's motivation in class. When talking about why his excitement for the class breaks his scale and he said:

There's the teacher...I get freedom... it's like freedom... it's freedom. I get to do whatever I want. I like doing things that I like to do...ya hear me...outside of school and inside of school. So, I don't mind, I love it.

Alijah appreciated the high level of autonomy he has in Concert Band that he does not have in his other classes. He mentioned how his history class was so boring due to an overload of work and an “annoying” and strict teacher. Regarding Mr. K, Alijah gave him an eight on his ten-point scale. He said:

He’s a great teacher...so like...he has helped me with like ...tempo. He’s helped me out...like...become a better...a better player, and so have the other kids. I...I give props to him for...like...making me a better player. He just... like...brings you up.

Although Alijah mainly had positive comments about Mr. K, he did mention that sometimes students experience pressure in class because the newer students might take longer to learn their parts. The pressure might be self-imposed, as Alijah did not mention that Mr. K used any rewards or threats of punishment to motivate students.

Alijah did not elaborate on why Mr. K received an eight-out-of-ten rating and not a perfect 10, but it was clear that Alijah did not always follow Mr. K’s directions. Mr. K’s had spoken to Alijah several times during the rehearsal, and Mr. K’s frustration was apparent as Alijah was continually playing music while Mr. K tried to give instructions to the group. Alijah was the last person performing on the stage when the end-of-class jam session slowly ended, and Mr. K repeatedly had to tell him to stop playing. Yet, regardless of these controlling behaviors in class, Alijah was still motivated to engage in Concert Band. He was able to internalize the values of Mr. K’s classroom this year as a pianist. Intrinsically motivating activities are fun, and during our conversation, Alijah was clearly having fun performing with the group, especially during the jam sessions. He

continually expressed his joy and his love for the Concert Band.

Nara

On the morning of my third visit, Mr. K looked around and noticed Nara and Kiara sitting nearby and asked them if they would mind speaking to me. Nara was a senior at West who moved to the United States from Brazil 3 years ago. She had a passion for visual arts, which she planned to study at college next year. She had an open spot in her schedule this year, and her best friend Maria convinced her to sign up for the band. Nara had always wanted to learn an instrument but had never had the opportunity before. When Maria convinced her to join, Nara decided to learn violin. At the time of our interview in November, she had only been playing for 3 months but loved being a part of the class.

With little prior musical experience, Nara did not have the internal motivation to make music like Justin and Alijah. While she had an initial interest in playing an instrument, she enrolled because of the opportunity to be in a class with her best friend. Her family was also a factor in her motivation to participate. No one in Nara's family played an instrument, but her family was very supportive of her learning something new. She spoke about how she loved playing for the family, especially her grandmother, although Nara laughed about her amateur playing, disclosing, "It's not the best all the time." Our conversation showed that family was important to Nara, and her participation in the band might have lessened without her family's support.

Nara admittedly had a relatively small group of friends in the band as well as in her other classes. Nevertheless, her smaller friend group seemed more than enough to

help to satisfy her social needs. When there was time to socialize in the band, she told me she only talked to Maria and Ivan, who were the only other Brazilian students in class. After Maria had convinced Nara to sign up for the band, the two girls convinced Ivan to do the same. While her friend group might be small, Nara mentioned her two friends frequently in our conversation. She might not be close to the rest of her classmates, but Nara said that she enjoyed working with other students in class: “It’s a nice place to meet other people and maybe engage in a group so you don’t stand alone for the rest of the year.” Still, Maria was the one student Nara felt the most connected with. She mentioned, “It’s nice to have someone who I know in the class, so it isn’t just me and what...45 people that I don’t know with Mr. K in the same class.”

Nara’s friendship with Maria and Ivan was strong, yet it rarely distracted her from her musical interests. Maria and Ivan played clarinet and were in a different section in the band. With her friends on the opposite side of the stage, Nara had limited interactions with them during class time. She told me she often looked to Maria for musical help, as Maria had more experience, although her help would be minimal during class time due to being in different sections. Nara told me that her classmates frequently change instruments, and if she wanted to, Mr. K would allow her to switch to clarinet and be closer to her friends. However, Nara persisted with the violin and did not seem to long for more contact with her friends during class time. Still, as class began to end and the end-of-class jam session gained momentum, Nara and her two friends were among the first to pack up their instruments. They were quick to find a quieter space in the auditorium to socialize. For her, the time to talk with her friends was more important than trying to join

in the impromptu jam.

Nara had no previous connection with Mr. K, so she had less time to develop a meaningful connection with him like some of the other students in Concert Band. Nara credited Mr. K and his teaching style for her success in class and appreciated his openness with the students: “Mr. K seems to be a teacher that would really listen to everyone’s opinion.” While Mr. K had helped with her musical growth, Nara saw their connection as something more of a required part of Mr. K’s role as the teacher: “Talking with someone who’s paid to be here is more comfortable I guess. This is their job. I feel like students don’t really want to hear everything I have to say.”

The mixed levels of abilities in the class did not seem to be an issue for Nara, as she was not embarrassed by her lack of abilities. When talking about her confidence in playing violin, she stated, “I’m not a complete zero, it’s the basic skills that I know.” She understood she was still a beginner and was committed to improving. She had difficulty bringing the violin back and forth to school, so, unfortunately, she had not brought it home that often. However, she wanted to purchase a violin and stayed after school occasionally to practice her parts. Still, Nara seemed committed to improving and did not shy away from challenges. When asked about learning new songs, she said, “I would rather be able to learn some difficult songs and learn more things.”

Nara mentioned that when she sits in her first period class, she gets excited to come to Concert Band. She described Concert Band as break from her other classes that can be overwhelming: “Sometimes I really don’t consider the band a class. It’s almost free time cause I’m doing something that I like. So yeah I get pretty excited to come to

class.” Nara noticed other students’ freedom in class, such as her friend Ivan, who started on violin but eventually switched to clarinet. She said:

He [Mr. K] usually just asks us if we want to play something and then if we have an instrument available, he will hand them the instrument and teach us how to play it. If people know another instrument and are comfortable playing it, I think they sometimes play it if they would like, and Mr. K always lets them.

While Nara mentioned that Mr. K was loud and yelled at the guitarists and drummers a lot, she never mentioned feeling any pressure from him or her peers to act or behave in specific ways in class. She said:

I don’t feel like anyone’s trying to pressure anyone to do anything in certain ways. We usually suggest things, like “You may want to try doing this and that”, especially because people usually ask, cause as I said, we don’t know how to play properly. We’re trying to learn. Mr. K sometimes corrects us but he never comes to us and says, “You should do this like this.”

Giggling, Nara admitted that “Maria will push me out of my seat if I didn’t [work hard]”, but that was the only controlling behavior that Nara mentioned during our conversation. While Maria would push Nara and Ivan to work harder, Nara stated she mainly motivated herself. She had found a love for engaging with music from participating in Concert Band, and she hoped to continue making music outside of school.

Kiara

Kiara, an 11th grade student at West, joined the band for the first time this year. With her multiple nose and ear piercings, black nail polish, black clothing, and a T-shirt from the heavy metal band Ice Nine Kills, she had a much more striking look than the other students in class. Regardless of her outward appearance, she sat in the back of the pack of guitarists on stage and seemed content to blend in with the group instead of loudly playing riffs on her guitar like the other players in her section.

Kiara played music previously in elementary school but never found the joy that she got from playing guitar. When discussing her earlier musical experiences, she stated:

Kiara: I played violin in elementary school, cause that was really the only thing, you could learn, violin or cello. So...yeah.

Coyne: And were there no options for you to do music in middle school?

Kiara: In middle school? Yeah, we had an option but it was again...it was violin. I didn't really feel very connected playing that. I didn't feel like it was my thing.

So, I'd rather have not done it.

She decided to join the band at West after a friend told her to sign up. She had wanted to learn guitar and had once tried before joining the class but found it too hard: "When I started, I had...like...tried learning chords and stuff but it was way too hard. I couldn't move my fingers, so I was practically just starting." She saw the class as an opportunity to learn to play, and she was happy to show me all the chords she had learned since the start of the school year. According to Kiara, her experience in Concert Band motivated her to play more music outside of class. She mentioned:

Yeah! I have a guitar at home so I've been practicing at home. And [Mr. K] allows me to bring home an acoustic, so I have an electric at home and then the acoustic helps me because the strings are harder to push down, so it's way easier when playing electric.

Kiara seemed to have developed intrinsic motivation to practice guitar, and after a few months of practice, she had made notable progress in her abilities. Support from her family also helped to motivate Kiara to practice. When discussing her family, she mentioned recording videos on her phone of playing guitar to share with her mother. With a big smile, Kiara stated, "She's so excited!"

Mr. K taught a secondary general music class that Kiara was also enrolled in, which took place the period after the Concert Band and met in a separate music room where our conversation took place. While her classmates worked on learning songs on the piano, Mr. K let Kiara practice her band music on guitar. When she finished practicing her band music, she often used a guitar instruction app on an iPad to learn other material. She said:

I'm learning chords cause, as you know, in band we don't really use the chords or the sheets or anything like that. So, I learn those things so that if I do need to learn a chord in band, it's way easier because I already know it.

The extra time to practice during the school day helped Kiara develop more competence in her guitar playing. She felt comfortable with her guitar playing abilities: "In class...with the songs that we're learning...probably like a nine out of ten, cause I practice in here too, so it's easier. Outside of class...um...like a seven cause, I'm just

learning.” Kiara’s confidence in her own abilities played a role in the choosing her own songs to practice. When asked between picking easier or harder material, she replied:

In-between or the hard one because I feel like I’m more of a learner. I like to learn. So, learning hard things would probably benefit me in the long run because I have those things down easily, so when it comes time to do easy things, it’s like super easy for me.

The songs from the band were easy enough for her to feel competent, and the extra class time allows Kiara to search for more challenges that suited her increasing abilities.

Similar to the other Concert Band students, Kiara was excited to come to band class. When talking about her class before band class, she mentioned:

Usually, I get excited towards the end of class cause I know I’m going to be able to go do something I enjoy. Um...yeah...and I know that no matter what, it’s gonna be...like...a good class cause I’m just learning.

Similar to Justin, Kiara felt that being a part of the band had helped her in her other classes. She said:

Yeah, because I feel like since I have these two periods where I can kind of relax and do something that...is like...enjoying, I feel like I’m more focused in my other classes cause it’s not like hell for two periods, you know what I mean?

Kiara’s enjoyment in Concert Band was due in part to the atmosphere that Mr. K has created in the classroom. She said:

I feel like he's really open to...like...if there's suggestions and stuff. Usually, he's very inclusive and he tries to...like...give everyone a chance to be heard...like with their instrument...if they're playing.

Kiara also had never felt pressured by Mr. K or her classmates, although she did place pressure upon herself. When asked how the people around her motivate her, she said:

We have one guitar player, like our section leader, he's really good. But he was also in band last year, so it's understandable why he's that good. But I feel like it puts pressure on me...like...I can't be the worst. I can't hold people back, so that motivated me to try harder so I can reach his level.

She rarely mentioned other students or friends during the interview and did not seem concerned with the other students' thoughts. When asked her how well she works with her classmates, she said, "I feel...like...pretty well. I don't feel...like...awkward talking to them, cause it's just music. We're all doing the same thing." While she felt comfortable talking to them, she did not feel connected with them. She had enrolled in Concert Band because a friend convinced her to sign up, but the friend was never mentioned again. It seemed that Kiara primarily enrolled because of her motivation to learn guitar and not for the social aspects of the class. Regarding having friends in the class, she stated:

I don't think it's very important. I think it's good to make connections...like...through music. But I don't think making friends in the class is important, cause I could always talk to the teacher if I need to.

Kiara's lack of connections with her classmates was evident, as she did not talk to any of

the other guitarists during class time, and she was sitting by herself in the auditorium when the sectional rehearsals were underway.

Overall, Kiara's answers were notably more focused on playing guitar than participating in the band. She was very confident in her learning and did not need other students to teach her how to play her guitar parts, as she was clearly motivated to learn the guitar on her own. Concert Band initially seemed more of a pathway for Kiara to learn guitar, rather than an opportunity to make music with other people. Still, Concert Band seemed to be Kiara's first positive experience with making music since middle school, and there was plenty of time left in the school year for her to find more joy in making music with her classmates.

Within-Case Analysis

After coding and reviewing the data, several themes emerged connected to BPN satisfaction and student motivation. The within-case themes that emerged from the data about West High School were 1) autonomous motivation; 2) friendships; and 3) autonomy support.

Autonomous Motivation: "You know...music's fun. You know what? I'll do it!"

All students interviewed at West signed up for the band for the joy of making music, albeit to varying degrees. While Justin and Alijah had already played music before enrolling in Concert Band, Nara and Kiara had not played their respective instruments previously. Still, Nara and Kiara were motivated to learn to play an instrument, which led them to enroll. The initial interest in playing an instrument might seem obvious, but it is a crucial factor for enrollment. Students might sign up for a class for several reasons, such

as to be with friends, for an easy grade, or may be placed in the class by their guidance department. A student who is enrolled for reasons other than musical interests would need help internalizing the value of the class to develop autonomous forms of motivation.

Justin and Alijah's BPN were being supported by Concert Band, and they had intrinsic motivation to engage every day. Through class activities, such as improvisation opportunities and impromptu jam sessions, they could perform music that supported their competence needs. They had opportunities to change instruments and compose music for the group, which created support for their autonomy needs. Justin and Alijah had strong support for relatedness from their numerous friends and their connection with Mr. K. Additionally, Justin and Alijah found support for their three psychological needs through the impromptu jam sessions. While the jam sessions were a distraction for Mr. K and not part of his class objectives, they nonetheless provided an opportunity for students to find BPN support. By allowing the jam sessions to continue, Mr. K made these sessions a regular, expected part of the class, motivating students like Justin and Alijah to engage.

While Nara and Kiara had an intrinsic desire to learn an instrument, they had not fully developed intrinsic motivation to participate and engage in Concert Band. SDT posits that people experience different levels of various regulations (Ryan & Deci, 2018), and Nara and Kiara showed evidence of introjected and identified regulations. While Nara and Kiara had not developed intrinsic motivation, they were motivated more by autonomous forms of regulation and less by external regulation. Kiara did not speak of extrinsic rewards or feeling embarrassed around the more experienced guitarists in her section. Kiara showed evidence of introjected regulation when mentioning she did not

want to be the worst player in her section. Yet, Kiara also experienced identified regulation, as she twice mentioned that she practiced hard because she did not want to let her classmates and section leader down. Her hard work was for the benefit of the group, even if the circumstances in Concert Band might not be the most desirable, such as not having developed strong friendships with her peers.

Kiara's comments focused more on her guitar playing and less on participating in Concert Band. She was intrinsically motivated to play guitar, and practicing outside of Concert Band helped support her need for autonomy and competence. Kiara mentioned having friends outside of class who played guitar, which helped support her need for relatedness. Concert Band allowed her to begin playing guitar, but participating in Concert Band was only a step towards a further goal of becoming a guitarist. Participation in Concert Band helped connect Kiara with her identity as a guitarist, which helped support her motivation for learning guitar. Yet, Concert Band was less interesting than her second class with Mr. K, where Kiara experienced more support for autonomy. Identified regulation is a form of autonomous motivation, and with more support for her BPN, Kiara's motivation to engage in Concert Band could become intrinsic.

Similarly, Nara spoke a lot about playing the violin but was not intrinsically motivated to participate in Concert Band like Justin and Alijah. Participating in Concert Band allowed her to learn to play violin, but she could have received the same BPN satisfaction from participating in a more traditional school orchestra, as she strictly played the notes on the page before her. The nonformal aspects of the class did not have much effect on Nara's motivation. Like Kiara, Nara was motivated by identified

regulations, and more support for her BPN would be needed for Nara to develop the intrinsic motivation that other students in the class had.

Another sign of autonomous motivation and BPN satisfaction came from the students talking about their other classes at West. SDT posits that the positive effects of psychological needs satisfaction from one class could carry on through later classes (Ryan & Deci, 2017; Skinner et al., 2012). Justin, Alijah, and Kiara mentioned how participating in Concert Band helps them feel good in their later classes. Although Kiara may not have fully developed intrinsic motivation for engaging in Concert Band, she felt the positive effects of intrinsic motivation for learning guitar.

One final notable observation was the class participation in the end-of-class jam session. During my observation, the students who relied more on standard musical notation were less motivated to participate than those who learned the band music by rote. Jamming students like Alijah and Justin displayed their intrinsic motivation for making music by continuing to play after the class had ended. The spontaneous music creation was fun, and students wanted to continue and disregarded Mr. K's attempts to get them to stop. While aspects of the class supported the BPN for the interviewed students, the jamming environment did not support the psychological needs of all students. Nara, who was less experienced with that style of informal music making, did not join in the jam session. Her need for relatedness satisfaction took precedence over her desire to play music.

Friends: “It’s important to connect with each other and build relationships with each other so we can all learn, all have fun, all respect each other.”

Friendship was a common theme among the four interviewees and was an important factor in student enrollment and maintaining student motivation in Concert Band. The data from the students support previous research findings that show friends in class are important for class enrollment and maintaining motivation in the classroom (Ryan, 2001). Kiara was the only student who felt that having friends in the class was unnecessary. She had enrolled in Concert Band for the opportunity to learn guitar and not for a social experience. Yet, she had joined Concert Band because a friend told her to, and Kiara mentioned that connecting with classmates was important. While she was friendly with the students in her section, Kiara did not regard them as friends in the same way she did with students with whom she had a much stronger relationship, such as her guitar-playing friends who had not enrolled in Concert Band. The lack of strong social interactions with her classmates hindered Kiara’s development of intrinsic motivation.

Nara and Kiara had not been members of Concert Band for very long and most likely had not had time to develop stronger relationships with classmates that would help support their need for relatedness. Nara had a previous relationship with two of her classmates, which helped to support her need for relatedness. Yet, Nara mentioned that her classmates “don’t really want to hear everything I have to say,” showing that she lacked connections with the students outside of her immediate friend group. Nara and Kiara quickly packed up at the end of class, allowing them to find relatedness support from similar students who also had not participated in the jam. While building

relationships with classmates is important, Nara did not develop strong connections with the students in her section, with whom she spent most of class time.

Kiara and Nara's need for relatedness was less supported than the more experienced students, such as Justin and Alijah, who were highly motivated in class. Justin was also new to Concert Band but was very friendly with several classmates who supported his need for relatedness. His pre-existing level of competence from performing outside of class allowed him to be less concerned with performing his parts perfectly and gave him more opportunities to socialize. Justin and Alijah's friends had similar ability levels and could relate to them through shared music-making experiences, such as the impromptu jam sessions. For these students, increased confidence and experience in performing popular music allowed for increased opportunities to find support for relatedness.

Kiara was the only student to mention that friends were not that important, and if she needed help, she could always talk to the teacher. She was motivated to learn the guitar independently and was not openly concerned with developing stronger relationships with the other guitarists in her section. Kiara received support for relatedness from her friends outside of class, as she mentioned several of her friends play guitar. However, this relatedness support helped her intrinsic motivation to play guitar, not her motivation to continue engagement in Concert Band. Her motivation came from identified regulations. Participating in Concert Band was not her chosen guitar-related activity. Still, it helped her build confidence in her playing and was an important part of her identity as a guitar player.

Nara had two strong friendships in the class, which provided her with ample support for relatedness, but she could not work with them during sectional rehearsals. While she was highly engaged in class, providing her with more opportunities to work closely with her close friends could help her sustain her intrinsic motivation, as well as the motivation of her classmates. When examining peer relationships in PME classes, Burg (2023) found that less experienced students worked harder when working with friends. The less experienced students accomplished more than the experienced students who were not working with friends. Allowing beginning students, such as Nara, to work more often with close friends could provide them with support for relatedness as well as help increase their music skills. Their hard work would improve their feelings of competence, which would further help students develop intrinsic motivation.

Autonomy Support: “He tries to...like...give everyone a chance to be heard.”

Mr. K was another common motivational factor for the students at West. The students’ comments were often directed toward his teaching style and demeanor than with specific lessons or knowledge he might have imparted. Mr. K used several autonomy-supportive techniques that positively influenced student motivation. By facilitating interactions between students with frequent sectional work and using section leaders to help experienced students teach less experienced students, Mr. K established a structure that helped to build connections and relatedness support between students. To build competence satisfaction among students, Mr. K taught songs in a method that allowed for easy participation from his students and found ways to make the music accessible to students of all levels, such as alternative music notation and learning by

rote. He developed an open relationship with his students, who felt there was adequate opportunity for them to express ideas and opinions. All four interviewees mentioned his willingness to let students learn and perform on instruments of their choice, helping to support students' need for autonomy. Mr. K supported autonomy by allowing students to select the songs to perform and incorporating a student composition into the class's repertoire. None of the students reported ever feeling pressured by Mr. K, and there was no mention of his use of extrinsic regulations to motivate students.

When talking about Mr. K, Nara and Kiara used phrases such as "I feel like Mr. K..." and "Mr. K seems like...". They did not offer definitive answers about his teaching and their connection with him, like Justin and Alijah. The boys had previous classes with Mr. K, which helped them develop a stronger relationship with Mr. K and gave them more to discuss in the interviews. The two girls had only known Mr. K for the few months they had been in Concert Band this school year and had not had the time to develop a stronger connection, which would have helped increase their motivation in class.

The students also saw Mr. K's less autonomy-supportive side. While there were moments when Mr. K acted as a facilitator for the class, he often resorted to controlling behaviors to motivate students to act a particular way. His reprimands, increased volume, and disappointed demeanor were controlling actions, creating introjected regulations within students to act a specific way. Mr. K's repeated directions to Alijah to turn down were controlling behaviors, which thwarted Alijah's BPN satisfaction. By not allowing Alijah to play when he wanted to, Mr. K thwarted Alijah's need for autonomy and

relatedness, as jamming with his friends was an integral part of Alijah's motivation to participate in Concert Band. By incorporating controlling behaviors, Mr. K created conflict between satisfying student autonomy and having a class that performed and acted in the way he thought was appropriate for a large concert band. Through controlling methods, Mr. K created fewer opportunities for students like Alijah to develop intrinsic motivation by not adapting to their preferred ways of engaging with music.

Mr. K's controlling motivational style kept the class in a more formal structure. Although he used aspects of informal music learning, such as student song choice, Mr. K relied more often on formal teaching strategies. This was partly due to the size of the class and the lack of additional teaching support in the classroom. Mr. K's ability to control such a large group was impressive, but it came at the cost of giving the students more control over the direction of their musical experiences. Finding ways for students to work in small, self-selected groups, learning songs by ear or with non-traditional music notation, could help create a more autonomy-supportive classroom where students could feel support for their BPN and learn to internalize the value of creating music with their classmates.

CHAPTER SIX: EAST HIGH SCHOOL

East High School was in an affluent community in the northeastern United States, with a median household income of over \$164,000. The student population in the East was primarily White (61%) and Asian (22%), and 12% of the students qualified for free or reduced lunch³.

Like many schools that offer popular music ensembles, East's Popular Music Ensemble was a relatively new addition to the school's music offerings. The course was a full-year program that met six days in a 7-day rotating schedule. The Pop Ensemble was in its third year, and enrollment had grown from 17 students to 32 in its current iteration. The course was open to all students regardless of grade level or ability, although there was a prerequisite that students have some experience with an instrument, such as a guitar or drum set. There was no audition process, and prior experience was taken on faith. Yet, as the class continued to grow, an audition process was being considered for the upcoming school year.

The class's instructor, Mr. G, had no training in popular music pedagogy but had been introduced to informal music learning through professional development. He designed the Pop Ensemble around Green's (2008) ideas about implementing informal music learning practices of popular musicians into school music programs. While East offered robust band and orchestra programs, Mr. G strongly believed that school music programs must grow to serve students' musical needs, as every student might not find a

³ I retrieved this information from the school's website and their profile on the state's Department of Education website. I have not provided the URLs to maintain the school's anonymity.

place within a concert band or a school choral group. He said:

We understood that there were many students in our school who were not being served by our music program at East. As proud as we are of the tradition of excellence that our band, chorus and orchestra programs have built, we wanted to also build opportunities for students to explore music-making in a broader and more contemporary way, if that is something they are interested in.

Students in the Pop Ensemble work together on week-long projects in small, self-chosen groups, learning songs they have chosen to perform using instruments of their choice. Mr. G would give the students a theme to focus on when picking which songs to learn, such as songs from a particular decade or songs with a verse-chorus-verse-chorus form. Mr. G structured the class to allow for significantly more amounts of student choice than is usually found in standard school ensembles. Students could go in whatever direction they choose as long as their ideas fit into the theme for the current project.

Typically, after discussing the theme in class, students offer song suggestions, which Mr. G would list on the class whiteboard. The class would listen to small parts of each song from Mr. G's computer, and then the students would write their names under which song they wanted to perform. For the first project of the year, Mr. G predetermined the groups based on student instrument preference and level of experience, combining students who have taken the class before with students new to Modern Band. He found that this experience encouraged the more experienced students to take leadership roles in the class and motivated the less experienced students to work hard on their first project.

At the time of my observation, the class had started their fourth project of the

year, so students self-selected groups by writing their names next to the song they wanted to learn until five groups of roughly five or six students had formed. After selecting songs, Mr. G assigned each group a practice space, the students negotiated each person's role in the band and gathered needed equipment for their initial practice. Groups typically have one six-day cycle to learn their songs by whatever means necessary, then perform for the class at the end of the six-day rotation.

Pop Ensemble

As the class began, the room buzzed with eagerness. The students chose their songs and groups in a previous class, and this was the first time the groups were working on their songs. The week's theme challenged students to mash up two very different songs, which Mr. G explained as "having no right being put together." Students entered and quickly sat in small friend groups, clearly motivated to work on their songs. Mr. G reviewed a few classroom expectations, but students wanted to start practicing. Two students already had guitars in their hands, practicing unrecognizable riffs, and one student sat close to the equipment closet to get their first choice of the available guitars. As the students broke into groups and prepared to rehearse their songs, the performance groups were roughly the same friend groups they sat in at the beginning of class. The students appeared very accustomed to the class routines and comfortable with each other, and the number of friendships seemed high.

The largest group of students was practicing in a small black box theater, and they planned on creating a mash-up between "September" by Earth, Wind, & Fire and Ozzy Osbourne's "Crazy Train." While most other groups had four or five students, this group

had nine. The students were quite motivated to play, and several students in the group helped the drummer and the keyboardist set up their equipment to get the rehearsal started as quickly as possible. The students were familiar with the routine of instrument setup, and almost everyone in the group pitched in to get things ready. One student, who seemed to be the group leader, passed out sheet music of an arrangement he made ahead of time with notation software, and a guitarist and keyboardist began to practice their parts.

When passing between the various rehearsal spaces, the majority of the students were highly engaged in different activities while they worked with their groups to assemble their songs. Most groups managed their high levels of autonomy easily as they rehearsed their pieces. In one practice room, two group members used the dry-erase boards to map out the forms of the songs they chose, while the drummer and the keyboardist separately listened to one of their song choices on their phones. Each phone played a different part of the song, yet the two students blocked out their classmates' distractions and found the correct notes and patterns on their instruments. A second group of four girls debated different ways to combine a Billie Eilish song with a Taylor Swift song. They asked each other if they should use the verse from one song with the chorus of another. One student suggested they could try to sing both choruses at the same time. One member used her phone to bring up the chords for each song while the bassist watched a YouTube video about how the Billie Eilish song has two different bass lines playing simultaneously and tried to determine if she could perform both. The bassist later told the group, "It would really help if we knew a little more music theory." Mr. G

walked in to check on the group, and Alicia, the singer, told him everything was going great, so he quickly moved on to listen to some other students.

In another practice room, a group of five boys was working hard to learn “Could You Be Loved” by Bob Marley. Through their conversations and comradery, it was apparent that four of the boys had a previous connection and they easily balanced learning the songs with their general silliness. The fifth boy, the drummer, was not as engaged as the other members and was staring at his phone while seated behind the drum set. Two guitarists were in the group; one of them, Eddie, had taken on the responsibility of leading the group as he worked with everyone on their parts and did his best to keep the group focused during the rehearsal. Eddie demonstrated the two different guitar parts in the song, then discussed with the second guitarist which part each would play. While the singer listened to the song on his phone, the keyboardist struggled with changing the sounds on the keyboard, and Eddie showed him how to change patches and suggested a good one to use. The second guitarist played an introduction to “Despacito” by Luis Fonsi and was adamant that their performance should start with it, but no one seemed to take him very seriously. The keyboardist asked what the chords for the song were, and Eddie told him which ones to play. They played the chords together while the second guitarist continued playing the introduction he wanted to include. Eddie noticed the drummer was distracted with social media on his phone, so he approached him and told him what to play by singing the basic drum pattern. The drummer seemed a little frustrated but put down his phone and attempted the beat when Eddie asked him to play back the rhythm he had sung. When satisfied with the drummer’s performance, Eddie

asked the group, “Should we take it from the top?” Looking confused, the second guitarist asked what he meant, then continued his plea to include his introduction suggestion without waiting for Eddie’s response. Mr. G stopped in to see if anyone needed anything. When the students replied that everything was good, he helped adjust some amplifier settings for the keyboardist before leaving to check on another group.

I checked back on the largest group and found that, unlike the other groups, not all students were engaged. One guitarist was confused about what to do, while a second guitarist continually played riffs from popular heavy metal songs, none of which were the songs the group was rehearsing. The noodling metal guitarist told another student that he already knew the guitar solo for Crazy Train, which is why he suggested that song. Another male student, who did not have an instrument, stood around talking to the girls in the class about nothing related to the project. The bassist, Rebecca, looked disappointed to be playing the bass and expressed concern that her part would be overly difficult. The drummer began playing a fast-tempo swing groove that had no connection with anything the other instruments were playing. Mr. G came in at the end to let the students know it was time to pack things up and asked how the first rehearsal went. Sadly, the group leader mentioned that very little got done today, but they will be better prepared tomorrow after all the members have reviewed their parts tonight.

As the class period ended, most groups rushed to put equipment away. Several students mentioned how they lost track of time and were worried about being late for their next class. Students quickly exited, some taking the time to walk by Mr. G and say goodbye. There was an apparent connection between several students and Mr. G, as a few

remaining students discussed songs by Portishead and spoke with him about the school's guitar equipment. He readily joked with a student about his chosen attire (a pair of pink slip-on shoes and a cowboy hat) before he sent the students off to their next classes.

Rebecca

Mr. G did not seem concerned with which students were interviewed and chose Rebecca because he thought she would be a well-spoken, first-year Pop Ensemble student who could give me some insight into the class. Rebecca was a quiet ninth grade student at East who played guitar and bass outside of school. She played violin for her middle school orchestra but quickly mentioned not enjoying it. This was her first year in Pop Ensemble, and she stated that the class was much more fun than her previous music classes because "there are less people, and you can connect with them instead of the hundred people in orchestra." Pop Ensemble meets in the middle of the day, and Rebecca said she thinks about it a lot during her earlier classes and enjoys Pop Ensemble because "there's not as many tests, like in Math." She described Pop Ensemble as "a pretty chill class, and there's a lot of cool people who can help you learn songs and stuff."

Despite her soft-spoken demeanor, connecting with her classmates and developing friendships were the driving factors for Rebecca, motivating her to engage and participate in class. One of her friends had previously taken Pop Ensemble and convinced her to sign up. Since enrolling, the two of them have worked together frequently in their small groups to learn songs for upcoming performances. Rebecca said her family was supportive but not a deciding factor for enrolling in the class: "I don't think they entirely understood what you do in it, but they didn't mind. They thought it

was cool.”

Rebecca enjoyed how, in Pop Ensemble, “you can socialize more. You can’t...like...in Math, you can’t talk. But in this class, you’re supposed to talk to people.” She attributed her success in the class to the opportunity to talk with her classmates, as there are always people to show you what to do if you are confused. However, when asked if having friends in the class was important, Rebecca did not seem to believe that having an initial friend was essential: “You can always make new friends.” Before this class, she did not know most of the people in her group. Rebecca was now friends with all of them and felt that the class would still be fun, even if her initial friend had not signed up.

While Rebecca felt connected to many of her classmates, she has not developed a connection with Mr. G. She appreciated how he quickly gets class going. When asked about how he runs the class, she said:

We get a hello and stuff, we get a greeting, and then we are sent off to get instruments and setup in our rooms...he gets to the point very fast, like he just tells us what we’re supposed to do.

As a result, she had little interaction with him: “Sometimes, when you have questions, you don’t always know where he is.” Despite the lack of connection, Rebecca was still highly engaged and motivated by her friends in the class.

Rebecca’s group’s success took precedence over her instrument preferences. She said, “The last performance, we had...like...six acoustic guitars, and I was one of them. But I don’t really care what I play.” While the guitar was her favorite instrument, she

opted to play bass guitar in the current song because no one else chose it, and the song needed a bass player. Rebecca was unsure of the names of the songs they were working on and was not concerned about what she song or instrument she played. For her, playing a familiar song seemed less important than working with her friends and being part of the group.

While she talked about being open to playing any part in the band, Rebecca showed frustration with the bass during the rehearsal. She expressed concern to her classmates that her part was overly complicated. A few days later, during her interview, Rebecca stated that she had just purchased a bass to practice at home: “I guess with the performances, you don’t want to leave it all to them [her group members]. You want to learn your own songs or your own piece.” She mentioned the stress of playing in front of classmates and not letting her group down, which seemed to have motivated her to purchase the bass to continue practicing outside class. Playing music was an important part of Rebecca’s life and her comments suggested that she felt playing her part accurately was critical to her group’s success.

Despite being concerned with the difficulty of her bass part, Rebecca said that she would prefer more challenging pieces to play over easier ones, seeking optimal challenges of her abilities: “Too easy [of a song] would be just like you learn it and play and not get much from the experience. But too hard? I wouldn’t want to stress too much about a song playing in class.” However, it was unclear how much Rebecca sought these more challenging songs and parts, especially since she did not seem to care what song she was playing. The songs her group was practicing during the observation were not songs

she suggested, and she was working with the group because her friends were in it. Still, Rebecca challenged herself by trying new instruments in class, such as the bass, and her motivation to improve pushed her to purchase her own bass and take private guitar/bass lessons.

Eddie

Eddie, an 11th grade student at East, looked like a stereotypical rock star with long hair, jeans, and a Metallica T-shirt. He was able to comfortably play guitar, bass, and piano but considered himself primarily to be a drummer. He played in East's jazz band, and outside of school, he played drums in a rock band that had played concerts around the East Coast and even a few shows in Europe. In our conversation, Eddie was less concerned about being a drummer and more focused on being a musician. His face lit up when I complimented his guitar playing during our interview, "Honestly, I'm really happy that you see I'm a...I can strum the guitar here and there. I'm more of a drummer." His intrinsic love for making music motivated Eddie to seek out new school-based music-making experiences, and when Mr. G introduced Pop Ensemble, Eddie signed up in ninth grade. Now in 11th grade, Eddie had been in the class all three years it had been offered and intended to retake it when he was a senior at East.

While his intrinsic motivation to make music initially drew him to join the class, his motivation to continue engaging in Pop Ensemble came from being social and connecting with friends. Eddie tried other school music programs, including orchestra in elementary school and concert band in middle school. Unfortunately, he never found a spark with either of those groups, partly due to his need for relatedness satisfaction,

which, based on our conversation, was thwarted within these groups. For example, when explaining what a new student to Pop Ensemble might expect, Eddie stressed the need to be social: “If it’s someone that doesn’t work well with other people in...like...a group setting, if it’s someone that’s more an individual, I’d say then probably go for orchestra or a different music class.” When asked if he gets excited about Pop Ensemble when he is in his earlier classes, he told me, “This is the peak. 100%. Pop Ensemble is...it’s not like a brain break, but it’s definitely...like...somewhere where I feel...um...I’m with all my friends. So many of my friends are in this class.”

In Pop Ensemble, Eddie often worked in groups with the same friends for each project, particularly the second guitarist in Eddie’s group from my observation. He said:

Eddie: I’ve played in bands with him, and we’ve known each other since we were very young...which is kind of why we put each other in the same group.

Coyne: Do you often find that you go and pick groups based on friends?

Eddie: Yeah...of course. Everyone does. And new faces are always great.

While he may choose to work with more established friends, Eddie also developed new friendships within the class. During the rehearsals and song performances, Eddie had been outgoing and friendly with all class members, not just those he had a previous connection with. He mentioned: “I had never known Paul, who was the keys player, before this class...and I got to know him through this class...and it turns out he’s a really cool dude.” Phil, the drummer from Eddie’s practice group, was in 10th grade and not part of Eddie’s friend group. Phil chose to join the group based on the song choices and the ability level of the other players, not due to friendship with the older students. Phil did

not have the same connection with Eddie that the second guitarist had, and it was unapparent that the two did not know each other before meeting in Pop Ensemble this year. Still, Eddie's outgoing manner helped him connect with Phil and get him engaged with the rest of the group.

Like Rebecca, Eddie was motivated by his desire for a successful group performance, which often pushed him to forgo something more fun to ensure the group's success. While Eddie loved to play drums, he often found himself playing different instruments, so other group members could play something they were comfortable performing. The group experience of playing music was important to him, even if playing the guitar might be less fun than drumming. He stated: "Phil only plays drums, so what am I going to do? Stick him on guitar just so I can play drums?" When asked if he ever feels pressured to act a specific way in class, he replied, "I don't even like that word pressured. But I think...I think I feel almost...like...you know...obligated to collaborate with the...kind of make a plan."

Practicing with other musicians helped improve Eddie's musical abilities in class, helping him gain experience with new instruments and connect with classmates. "Working with... like...people...that are more skilled is definitely helpful." Eddie and the second guitarist in his group worked feverishly to perfect the guitar parts for "Would You Be Loved." The connection between the two guitarists allowed them to easily share ideas, such as how to mute the guitar strings and which position on the neck of the guitar would get the easiest-to-play introduction.

As an experienced musician on several instruments, Eddie had adopted the role of

teacher in his groups and embraced the responsibility of showing others how to play their parts. When talking about his first year in Pop Ensemble, Eddie said:

There was a couple of people that, you know, were kind of confused in with their parts, didn't have as much experience, so it was a little bit of a challenge. But I think...um...that is just...is solely based off...like...experience, and whether you have to something to kind of add...like...I play multiple instruments, so I can kind of go between, you know, showing the drummer his part and the bassist...and that's...can be very helpful in a group setting when only one other person besides me is playing bass. So, therefore, I'm kind of like, you know, the instructor in a way.

Although Eddie believed the variety of ability levels within the class can be challenging for some students, he embraced the opportunity to pass on his intrinsic love of music.

When discussing how music was an important part of his life, he said:

The joy that I find in it is really just so great, and...when I'm teaching a kid how to play guitar, it's not like I'm getting super frustrated. It's like I'm passing down enjoyment, and it's like part of my duty in that way, if that makes sense.

Eddie enjoyed how the class was structured and how hands-on it was. He appreciated how interactive the class was and how it differed from what he calls the assembly line process of playing in a concert band, where the teacher hands out the music, and everyone plays what is on the page. His previous music classes did not give him the autonomy that Pop Ensemble did: "I love improvisation, and there's none of that in band. Not only is your voice not heard, but you're overshadowed by everyone else." Although

Eddie played drums for the school's jazz band, he found Pop Ensemble more interesting, and he believed that it is easier to provide input in Pop Ensemble, helping guide the direction of the class.

Sam

Sam, like Eddie, was in 11th grade and had been in Pop Ensemble for all three years at East. He was a part of the chorus in middle school and disliked it. Sam also played cello and oboe but did not enjoy band and orchestra because of the style of music played in those groups. His intrinsic motivation to make music had him looking for other opportunities beyond the standard school ensembles he had already tried. When picking classes for high school, he saw Mr. G's presentation and stated:

He gave a presentation to our world music class...like... "I have this idea for a class. Let me know if you guys are interested...like...I think this could be cool."

And I was...like... "Yeah, that sounds fun." At the time, I only played piano. So, then I signed up for it.

While Sam's family wished they had similar music opportunities in school, they were not mentioned again during our conversation and did not seem to factor in his decision to enroll in the class.

Sam's participation in Pop Ensemble had increased his desire to make music outside of school, and he credited the class with exposing him to new ideas. Sam had played the piano for several years, but he mentioned a few times that although he still played a little, he did not enjoy it. The class helped introduce Sam to the guitar, and he now considered himself a guitar player and had been spending hours learning songs at

home, building his confidence. When asked about his music-making outside of class,

Sam said:

Coyne: Do you think being part of this class has motivated you to do more music outside of class?

Sam: One hundred percent. Yeah. Like...I told you, I didn't play guitar before or play bass before. Now I play guitar. I play bass. Like...I was never into...like...mixing or anything until I joined this class. Like...the whole musical world opened up.

Sam also credited Pop Ensemble with introducing him to the production side of music, and he had begun to experiment with recording software at home and helped run the sound for the school's musicals and plays.

Sam mentioned that he preferred playing songs that were in-between easy and difficult, but he was open to playing anything as long as it was fun. When asked about song choices, he said:

If it's...like...super easy, but it's like really fun...yeah I'll play it. That'll be so fun.

But if it's...like...a really boring song that's really easy...like...I wouldn't want to play it, so it depends because it could be fun.

Through our conversation, it became apparent that his need to fit in with the group drove his responsibilities in his group work. He would do whatever part the group needed for a successful performance. He said:

I'm easy going...like...I go with the flow. If someone's like, "We need someone to play bass on this one," I'd be like, "Sure." Or like "We need someone to sing."

Well, I've never sung before, but sure, I'll give it a go.

While working on harder material allowed Sam to challenge his skills and increase his learning, he enjoyed playing easier material as it allowed him to socialize with friends. Sam mentioned that he had numerous friends in the class and felt connected to most of his classmates.

Mr. G had given the students a large amount of voice in how the class operates, which appealed to Sam. He loved how the class was student-run, which made it feel different from his other classes during the day. Sam felt that the students had all of the control in class and believed there is never any pressure in the class to do things in a specific way. When discussing practicing the songs, he mentioned: "You can make it as weird as you want."

Sam felt that developing friendships with his classmates helped make the class more enjoyable. He sometimes got frustrated when he did not get his instrument of choice, but the class was still worthwhile because he got to hang out with his friends and make music. He saw the class as a community-building experience and noticed that being around his friends was important for his motivation: "I think it's more of a...motivation to be seeing...like...alright, all of my friends are learning this song. Like...I have to learn it too. We all gotta do our part so it comes together."

Sam did feel pressure to perform his parts correctly and fulfill his responsibilities within the group. When discussing group work, he mentioned:

If everyone in your group knows part of the song and you don't, you kind of just gotta be like...alright, I gotta learn this real quick because otherwise when we

perform it, I'm gonna be the only one that sucks.

However, Sam's connection with his classmates helped make the performances easier. Even though Sam was not the best guitarist in the class, he was not nervous about playing in front of anyone because he was friends with the rest of the students in Pop Ensemble. He stated: "Everyone here is friendly. No one's gonna be mean to you." For someone new to the class, who might not have any friends in Pop Ensemble, being sociable was vital for their success: "You've got to be willing to try new things, experiment, meet new people, work with new people. We gotta be social, everyone is friendly. You gotta be out there and you're gonna have fun."

Alicia

Alicia was another student in 11th grade at East and had been a part of Pop Ensemble since it started three years ago. Before taking this class, she had little experience with formal school music ensembles, although she studied piano briefly in 4th grade. Alicia was very interested in singing and signed up for the class after listening to Mr. G's presentation as an 8th grader, thinking it sounded fun. Now that she was in her third year of the class, she believed the class was relaxing and put her in a good mood for the rest of the day. Like Sam, Alicia credited Pop Ensemble with exposing her to more types of music-making. During our conversation, she said:

After I joined this class...like...I kind of...like...was introduced to this whole other world of...like...creating music and...like...maybe even producing it. So this year, one of my goals is to start a cover channel, which is to start...like learning about sound stuff and actually...like...recording stuff. But...like...I don't think I

would have ever done that without this class introducing me to that.

Alicia had an intrinsic interest in making music, although her previous music classes were of little interest to her. Pop Ensemble had helped her find a meaningful way to engage with music-making.

Like the other students interviewed, the importance of Alicia's friends stood out. She had worked with the same group of classmates to perform for each assignment, partly due to familiarity and partly because she did not have the largest friend group in the class. When talking about group work, she said:

It's kind of hard to work with people sometimes because some people have different ideas of how things should go. And...like...if you want to do something...like...in a specific order and other people just want to figure it out...like...go as we go...like... it's a little hard to...like...compromise, not compromise, but kind of get a feel for what the group is gonna do.

Regardless, even when only working with the same students week after week, she felt connected to her classmates and viewed the entire class as a community. She mentioned how people in the class were very flexible, how her classmates were very supportive, and how she never felt pressured by them. When asked if she ever felt pressured in class to act a specific way, and Alicia replied:

I feel like people never really tell me what to do. Like...no one's ever told me, "Can you sing that note a little higher?" or whatever. No one's ever done that. I have...like...a lot of freedom as a singer.

She found that people in the class were more likely to offer positive suggestions rather than tell others to do something a specific way.

While she was happy to work with anyone, she noted that the students in Pop Ensemble prefer to form groups with their friends. She stated that people occasionally group together based on their ability levels, but the groups can be difficult to navigate sometimes when people have different ideas about the performance. She stated that it can be hard for a beginner due to the class's wide range of skill abilities. For Alicia, the disparity in ability with a beginner might cause difficulties in groups of more experienced students. Alicia thought that a few of the groups in the past have had difficulty working together, but that had never happened with her friends and her as they practiced each week's assignment.

In addition to her connection with her friends, Alicia felt she had a good relationship with Mr. G, which provided positive connection in the class. During her first year in Pop Ensemble, Alicia was nervous performing before her classmates, but not anymore, thanks to Mr. G's assistance. When discussing his teaching, she said:

He's like a mentor, but...like... he's also helped me with...like...how I feel about my singing, because since I started...like...I wasn't expecting it. I didn't think I was going to be singing...but like...I was the main singer for the first year, and that kind of pushed me to go out of my comfort zone.

She thought Mr. G has become slightly more rigid over the past year, yet Alicia never mentioned anything from the class that would sound like he was acting in a controlling way. She attributed the change in structure to the increased class size, as the enrollment

has doubled since her first year in Pop Ensemble. Despite the slightly firmer class structure, Alicia still found the class very flexible: “Our groups are...like ‘Oh, you wanna do that? Ok, let’s do it!’”

Over the past three years, Alicia had become one of the class’s primary singers, and her experiences had helped her grow more confident as a musician. However, her work in Pop Ensemble did not always challenge her abilities: “I’m a singer. I don’t really need to be...like...super skilled to take part in one of the songs.” The lack of a challenge in class had her wanting more difficult material to practice. When asked if she would prefer easier or harder songs to work with, she replied:

I feel like a lot of these songs for me...like...the singing is pretty easy, and if I were given a chance to be able to...like...increase or learn a bunch of vocal things or whatever, I’d definitely take it.

Although she said the songs were easy, Alicia believed that her hard work outside of class had helped her the most in class. She felt the most successful when everyone knew their parts. Her own preparation outside of class helped her adapt to her classmates’ performances when they were practicing together.

Alicia credited her experiences in Pop Ensemble for making her more confident in her other classes: “I’ve learned so many songs in this class...like...at first, I was like, ‘Oh, what if I don’t memorize the lyrics? What if I mess up?’” Alicia’s increased experience had helped her become more confident in her ability to learn. She said, “But now, after [learning] so many songs, I’m like, ‘Oh, I can do it whatever,’ and that kind of makes me feel more confident in myself but also in my learning in other classes.”

Like the other interviewees, Alicia never mentioned any extrinsic regulations used to motivate her or the other students. She never mentioned her family or friends pushing her to sign up for Pop Ensemble. Her motivation to enroll in the class for the past three years came from her intrinsic interest in music making.

Within-Case Analysis

The data relating to the Pop Ensemble at East High School had several themes connected with student motivation and BPN satisfaction. East students showed high levels of engagement and motivation in Pop Ensemble. Within-case themes that emerged from the data pertaining to East High School were 1) an alternative to formal music making; 2) connections with peers; 3) autonomy-supportive teaching and BPN support; and 4) providing for the group.

An Alternative to Formal Music Making: 'It's much more interactive.'

At East High School, the interviewed students signed up for Pop Ensemble primarily out of their previous connection with making music outside of the classroom and their intrinsic fondness for making music. Several of the students had participated in their middle school's orchestra, choir, and concert band and did not enjoy their experience. As a result, East's standard music ensembles, such as orchestra and concert band, were of little interest to the Pop Ensemble students when they enrolled. Yet, even with their lack of interest in or negative experiences with their middle school ensembles, these four students were still motivated to find an alternative music-making experience. Their interest in joining the class came from the opportunity to engage with the popular music they enjoyed outside of school. Reeve (2012) stated classroom activities that

connect to students' interests help positively shape the students' learning environment. This, in turn, positively affects the quality of the teachers' motivation, which can help students build high-quality motivation and engagement. Mr. G created a classroom environment based on student interests by designing an ensemble incorporating popular music. This promoted the students' autonomous motivation growth and resulted in a high level of student engagement.

Several students who had enrolled in Pop Ensemble the first year the course was offered could not have been motivated by students who had taken the class previously. While this points to their intrinsic motivation to make music in a class that sounds fun and interesting, it also indicates their initial perception of Mr. G and his potential to provide autonomy support. Shen (2010) found that students were more likely to enroll in elective physical education classes when they perceived the instructor as autonomy-supportive. Mr. G's presentation, therefore, was likely a factor in convincing students to enroll in Pop Ensemble.

Connections With Peers: 'It's like a community-building experience.'

Peers and friend groups can influence student motivation in schools (Ryan, 2001), and friends were an essential reason for the interviewees to continue to engage with Pop Ensemble. Several students enrolled in the class every year it was offered and commented about how many friends they had in the class. Their continued enrollment was consistent with previous research findings that students' peers helped increase enjoyment in arts classes and supported their continued involvement in arts programs (Patrick et al., 1999). Enrollment for Pop Ensemble grew every year, partly due to students convincing

friends to join the class.

Friendships were largely responsible for the students' relatedness satisfaction. Specifically, the students' friends and peer groups, not Mr. G, helped support their need for relatedness. Students mentioned the community aspect of Pop Ensemble and discussed how their success in class came from talking to and learning from other students. For Eddie, being social and connecting with classmates was a vital component of the class. His experiences in his previous school ensembles did not support his need for relatedness, and he suggested that less social students might find more success in a more formal music setting, such as the school orchestra.

Students' relatedness satisfaction can also come through teacher-student relationships, as a supportive teacher-student relationship can positively affect student motivation (Reeve, 2016). However, the students in Pop Ensemble did not rely on connecting with Mr. G to support their need for relatedness. The lack of connection was mainly due to the design of the class. The structure of Pop Ensemble was heavily student-centered and allowed for greater support of students' autonomy needs than standard high school classes taught in a more formal manner. Students spent most of the class in practice spaces that Mr. G rarely supervised, so students relied on help from their classmates rather than Mr. G. The classroom structure provided more opportunities for students to build stronger connections and support relatedness through working with their peers. These connections would be further strengthened in future projects where students could opt to, and often did, work with the students they had previously worked with.

The more experienced students who had developed connections with Mr. G had

all enrolled in Pop Ensemble for multiple years. As they were more experienced, they were more self-sufficient and could complete their work with little help or direction from Mr. G. Meanwhile, Rebecca was in her first year of Pop Ensemble and had not developed a connection with Mr. G yet. She required more assistance and was frustrated when he could not be found. Due to the nonformal class structure, students needed more time, possibly several years of enrollment, to develop a strong connection with Mr. G. Rebecca's lack of a connection with Mr. G led to frustration with her need for relatedness as well as her need for competence, as she had no support for her difficult bass part.

Autonomy Supportive Teaching and BPN Satisfaction: 'You can make it as weird as you want.'

Teacher autonomy support is important for students to develop intrinsic motivation, and structure within the lesson and units is necessary for autonomy support to succeed in the classroom (Reeve, 2009). In addition to providing opportunities for relatedness satisfaction, Mr. G created structure through his established class routines, such as the clear themes, deadlines, and expectations tied to each cycle's performance. Mr. G also supported students' autonomy needs through the many choices students had in the class, such as song, group, and instrument selection. Students understood the expectations and found success within the class's structure while having autonomy over many classroom decisions and developing connections with classmates. Mr. G incorporated several aspects of informal music learning into the structure of Pop Ensemble, which allowed him to easily take on the role of facilitator. This created a student-centered learning environment and helped create an atmosphere that supported

students' BPN.

Students seeking competence satisfaction search for optimal task challenges (Ryan & Deci, 2017). These challenges are neither dull nor overly demanding and help students stretch their current skill levels. The Pop Ensemble students displayed evidence of competence satisfaction when discussing song choice. The students preferred more complicated songs because that meant learning more, yet there was little discussion regarding song difficulty before students made their choices. They listened to parts of each suggested song as a class, and Mr. G made a few passing comments about a few of the songs, but there was no mention of difficulty level. The students had to decide on their own whether they would be capable of playing the piece while picking which group to join.

Once students rehearsed with their group, Mr. G's autonomy-supportive practices encouraged them to create approximated performances that allowed them to find confidence in their playing. Unlike their experiences in previous music ensembles, students' success was no longer connected to their ability to replicate the individual parts their teacher assigned them perfectly. Mr. G's nonformal structure of the class helped students find BPN support, as the nonformal music learning strategies incorporate techniques that connect with autonomy, competence, and relatedness.

Some students were not looking for a challenge, as one student suggested a song and joined that group because they could already play the guitar solo. While students were free to pick groups based on song difficulty, the students' practice groups mirrored the friend groups from the beginning of class. Additionally, the students mentioned they

had been playing in groups with the same friends every cycle. Groups supporting students' need for relatedness took precedence over groups performing songs that offered optimal challenges. Still, students had autonomy in how the songs were performed, allowing the students to challenge themselves by creating their individual parts. Through approximation, students worked to create versions of the songs that challenged their abilities without the pressure of performing an exact rendition of the song they practiced.

Two groups of students were overheard saying they had lost track of time at the end of class. Becoming absorbed in an activity and losing track of time is an example of flow, a state of mind that comes from being fully engrossed in an activity (Csikszentmihalyi, 1996). Flow is an intrinsic motivator that can be connected to SDT's need for competence, as the engaging activity complements the person's capabilities (Ryan & Deci, 2017). The students who had lost track of time had achieved competence satisfaction and experienced flow as they worked to improve their performances in a manner that matched their ability levels.

Providing For the Group: 'I can't be the worst. I can't hold people back.'

The final theme that emerged was the need for students to provide for their group and ensure that they were not the person who let the group down. Students experience introjected regulation as a controlling force where students feel they should or must do something out of shame or anxiety (Ryan & Deci, 2017). With introjected regulation, "individuals will often project their self-approval or self-disapproval onto others, imagining that these others will approve or disapprove of them conditionally as a function of the target behavior or outcome" (Ryan & Deci, 2017, p. 186). During their initial rehearsal,

Rebecca seemed stressed about the difficulty of her bass part, even though the students around her were barely engaging with the music. Her stress of being inadequate on the bass pushed her to purchase a bass to practice at home. Similarly, Sam mentioned how if everyone knew their part, but he did not, it would motivate him to work harder. He did not want to be the only person that “sucks.” While these students were motivated in class to work harder, introjected regulation is a form of extrinsic motivation and inhibits the growth of intrinsic motivation.

Several students in Pop Ensemble were motivated by more autonomous regulations. Students who have adopted and internalized the class’s values into their own identity are motivated by identified regulations (Reeve & Lee, 2014). After three years of enrollment in Pop Ensemble, Alicia was no longer nervous performing, and introjected regulations were not as strong a motivator. Alicia had more time to internalize the classroom values than newer students, such as Rebecca. Alicia’s previous experience with Pop Ensemble helped her find support for competence and develop strong connections with her group members. Her BPN satisfaction allowed her to move away from motivation through introjected regulations and develop more autonomous forms of motivation.

When students are motivated by identified regulations, they actively engage in activities that might not be as fun as intrinsically motivated activities but are valuable to their identity as musicians. Several students mentioned playing their favorite instruments because the group needed those parts for a successful performance. Similarly, Eddie took on the role of teacher in his group, showing his classmates how to play complicated parts

on several different instruments. He valued the opportunity to pass on information and help his classmates, even at the cost of not playing his preferred instrument.

CHAPTER SEVEN: CROSS-CASE ANALYSIS & DISCUSSION

As a teacher of popular music ensembles, I have seen how effectively PME classes can motivate non-traditional music students to engage in music-making activities. Music is an important part of the lives of my adolescent students. Yet, students often place low value on school music programs (McPherson & Hendricks, 2010), and only a small percentage of secondary students engage in school music programs (Elpus & Abril, 2019). While researchers have shown that popular music classes can increase student motivation (Burg, 2023; Cremata, 2017), few have examined the source of the motivation and how it is sustained or thwarted with PME. Additionally, PME classes are varied in their content and delivery of instruction (Mantie, 2013), and there is little information about whether these PME classes are run in a controlled or autonomy-supportive manner. Student motivation in these classes could differ based on the structure of the ensemble.

I assumed my students engaged in PME ensembles because they could work with their friends. I also assumed they engaged for the opportunity to perform music they enjoy outside of school, which is not typically the case in traditional school music ensembles. Using music that students connect with and relate to, PME can provide opportunities for school music programs to engage students who would not participate in traditional ensembles (Clauhs & Cremata, 2020). Through informal music learning techniques and increased student autonomy, PME classes can also provide a different learning experience from what students experience in their other classes, both music and otherwise (Green, 2008; Salmi & Thuneberg, 2019). By looking at several different PME classes, I wanted to determine what motivates students in PME classes, if these

motivating factors were consistent between differing PME programs, and to what degree these students were experience satisfaction of their BPN.

Research Question 1

My first research question was, “What factors are associated with students' decisions to enroll and engage in PME classes?” Previous researchers found students enrolled in music ensembles for intrinsic interest in playing their instrument, peer support, stress relief, academics, culture, and family (Adderley et al., 2003; Evans et al., 2013; Varner, 2017). As PME ensembles are often structured differently than traditional high school music classes, motivating factors for enrolling could vary between various PME classes. I separated my findings into two sections: 1) findings related to motivation to enroll in PME classes; and 2) findings connected with engagement in PME classes. Emergent themes from the cross-case analysis are explained in each section.

Enrollment

My analysis revealed several themes about what motivates students to enroll in PME classes. Many of these themes mirror the reasons for enrollment in traditional school ensembles (Adderley et al., 2003). When examining the data from the three cases in this study, the most common factors motivating students to enroll in PME classes were 1) intrinsic interest, 2) relationship with the teacher, and 3) friends.

Intrinsic Interest. Music classes are not typically mandatory at the secondary level in the United States, so most enrolling students would already be interested in music-making. Unsurprisingly, students from each case enrolled in their popular music class because they had an intrinsic desire to make music. Many of these students also had

negative experiences with previous, more traditional ensembles but still wanted to make music. Connecting to student interests can be an important method to motivate students, and these PME classes sounded fun and interesting for the interviewees. The intrinsic desire was more apparent at East and West, and much less at South.

Teacher Relationship. Support for students' BPN often comes from the teacher, and the relationship between teachers and students can impact class enrollment and student achievement (Ryan & Deci, 2017). Students in two of the cases enrolled because of connections with the teacher. These connections came from having the teacher in a previous class or from signing up for the PME class for consecutive years. Students are also more likely to enroll in a class when they believe it will support their psychological needs (Ntoumanis, 2005; Sun et al., 2017). The initial number of East students who enrolled in Pop Ensemble indicated how the students viewed Mr. G and his potential for providing autonomy support. Similarly, students at West were familiar with Mr. K and wanted to join the community he had built in Concert Band.

Friends. Having a friend in a class helps motivate students by supporting their psychological need for relatedness (Wentzel, 2017). Numerous students from East and West mentioned that they enrolled due to a friend's influence. These students often continued the enrollment trend by inviting other friends to participate in their PME class. Unlike the PME programs at East and West, where students can participate for multiple years, South's Jam Time was not a class that students signed up for numerous times. Students at South would have been less likely to be encouraged to join by current or previous group members.

Discussion

Connecting with students' interests and supporting their psychological needs can encourage the development of their intrinsic motivation. The highest quality of learning occurs when classrooms support students' interests and engagement in learning (Ryan & Deci, 2017). PME classes capitalize on student interests through the performance of music that students engage with outside of school. Students in this study often mentioned not enjoying or connecting with their previous ensembles and how the style of music they performed was not what they enjoyed. The PME classes from this study attracted students by using music that the students connected with. This allowed students to start the development of autonomous motivation, as they would have connections with their peers who had shared interests in popular music.

One notable finding regarding enrollment was that the student enrollment in South's PME class had many students who had been placed in the class instead of actively enrolling. A school placing students in secondary music classes is not uncommon, as music teachers have often referred to their classes as "dumping grounds" for students (Bula, 2011; Haning & Tracy, 2018). While some students, such as Anthony and Jordan, can succeed in such circumstances, others may struggle when placed in a class they did not elect. Students placed unknowingly in classes can create difficulties for the teacher, as classes students have no interest in can negatively affect student motivation and class performance (Freer & Evans, 2017).

Previous researchers have found that the desire to improve musical skills was a deciding factor in the continued enrollment in school ensembles (Adderley et al., 2003;

Silveira, 2013). Interestingly, students in this study did not mention enrolling to improve their instrument skills. Many of the students had never played these instruments before taking the class. Students with prior experience and clear intrinsic motivation to play music, such as Justin and Eddie, never spoke of choosing the class to become better musicians. For them, their PME class was simply a fun place for them to play music, which they were already intrinsically motivated to do.

The students at East and West shared similar motivations for enrolling in their respective PME classes. Yet, students at South did not sign up because of friends or a student-teacher relationship. While some students enrolled because the class sounded fun, many students were placed in the class. Few students were aware of Jam Time before being enrolled by their guidance counselors, and none of the students had a previous connection with the teacher. This was partly because students could only enroll for one year. Besides Jam Time, Mr. H only taught the school's traditional performing ensembles, so it was highly unlikely the students would have had a prior relationship with him.

The use of presentations and recruitment materials was not common between the three schools, as there was no mention of recruitment methods at South or West. Mr. H tried to make Jam Time a visible part of the school community. Yet, no student mentioned previous knowledge of the class, so it is unclear whether his efforts were effective in encouraging students to enroll. As PME classes are still relatively new in music education, more explanatory materials, such as Mr. G's presentation, might be beneficial in motivating students to enroll. Several students interviewed had poor

experiences with prior music classes, so promotional materials might show students how PME classes differ from previous music classes they may have taken and possibly motivate students to sign up.

Classroom Engagement

Once enrolled in a class, there are numerous reasons why a student's engagement perpetuates or diminishes. Student motivation is private and unobservable, but motivated students will express their motivation through increased engagement in class activities (Reeve, 2012). Balancing students' inherent motivational sources and the teacher's motivating style can sustain student engagement. Several themes emerged from the data that were responsible for students' sustained classroom engagement. These themes include 1) intrinsic motivation; 2) friends and connections; and 3) responsibility to the group.

Intrinsic Motivation. When intrinsically motivated, students engage in classes because they are fun and enjoyable. As a result, these students experience numerous learning benefits. Several students interviewed expressed their intrinsic motivation to engage in their PME classes. Students from all three cases mentioned how their popular music class was their favorite class and that it was fun. These students showed high-quality engagement by focusing on performing their parts accurately and engaging with their group members constructively. East had the most intrinsically motivated students, as there were more opportunities for students to receive BPN support. Fewer students at West were intrinsically motivated, and their engagement was directed more at playing their personal music choices than in performing the music with the full Concert Band.

South had the fewest number of intrinsically motivated students, as the PME class had the least opportunity for students to experience BPN satisfaction.

Friends and Connections. In addition to being an important factor in PME enrollment, friends played a significant role in continuing engagement in each case. Students who feel connected to classmates show greater engagement in school (Furrer & Skinner, 2003). Every student mentioned being motivated by their friends and classmates. East had the greatest number of students working with friends, as students had the choice to work in self-selected groups. South had many small friend groups, some of which participated in class, while others chose not to engage at all. If a student's friends were engaged, it was likely the student was engaged as well.

Teachers can strongly impact student motivation (Niemic & Ryan, 2009). All the interviewees spoke highly of their teachers and how they motivated them. They described their teachers as "a mentor," "inviting," and "inclusive." The teachers at East and West developed meaningful connections with students, which helped foster more autonomous forms of motivation. Meanwhile, Mr. H at South was only focused on the students who wanted to engage. He helped support the development of intrinsic motivation for only the engaged students while thwarting the BPN of disengaged students.

Responsibility to Group. Students from all three cases were motivated by the feeling that they needed to perform well for the group's betterment. Working with more experienced musicians is important for informal and nonformal music learning (Green, 2002). The structure of East and West's classes allowed for more peer interactions than the structure of South's program. The small-group and peer interactions in the East and

West classes helped students experience support for their BPN, which in turn helped them develop more autonomous forms of motivation.

When students internalize the classroom norms and external regulations, they show greater autonomy and more positive functioning in school (Reeve, 2012). Internalization can lead to a greater sense of community, a theme expressed by students in all three cases. In each case, students worried about being the worst player in the group and holding other group members back. When selecting difficulty levels of songs, students in all three cases mentioned choosing material that would help other group members find success. While learning a more difficult song could teach the students more, students were less concerned with their personal choices of difficulty and were focused on having the opportunity to participate in the group's performance.

Discussion

When examining student engagement data, I found that a large portion of students' engagement could be connected to the nonformal structure of their PME class. The more the PME classes incorporated formal learning strategies, the less students showed evidence of autonomous motivation. Nonformal music learning strategies are centered around giving students autonomy in their learning. The PME class at East had more opportunities to experience autonomy, and students were highly motivated while working in their groups with little formal instruction from their teacher. Meanwhile, teachers at West and South used more formal learning strategies, often using controlling motivational strategies, which limited students' development of autonomous motivation.

Nonformal teaching can help build students' connections with classmates, which I

observed more at East. Unlike the students from South and West, East students created connections through working in small groups to create their song arrangements.

Developing new friendships created more opportunities for East students to work with peers they enjoyed working with, helping to increase their motivation to engage in class.

East and West students also found motivation in working and helping classmates.

Through peer mentoring, students were able to support their need for relatedness. Gramm (2021) found similar findings when observing a modern band. Like the students from East and West, the students in Gramm's study showed increased engagement as they helped classmates, especially when the project allowed for subjective interpretation.

While there were fewer opportunities to work with friends at West and South, students discussed how their friends motivated them to work harder. Students in West's concert band often worked in groups, but unlike East, these groups were not self-chosen and were sectionals based on instrumentation. The sectionals provided little opportunity for the interviewees to work with their friends who played other instruments. South had the fewest opportunities for students to work with friends, as there was only one project where students worked in self-selected groups, which I did not observe. The students at South seemed to have smaller friend groups and engaged much less with each other than those at East and West. The lack of engagement in class can be connected to poor student relationships, as the quality of peer relationships can affect student engagement (Perdue et al., 2009). Unlike the classes at East and West, Jam Time was not structured to help students develop friendships that would help sustain their motivation and engagement. Opportunities to work closely with classmates were infrequent, and students were rarely

responsible for helping their peers learn their music.

While each case had a high level of student engagement, the students from West and South were less focused than the students from East. The project's end goal at East, which was their in-class performance, was a strong motivating factor, and the students worked hard to create a polished finished product. Meanwhile, West's students had no specific goal but to create music with their friends. Even though they had a concert to prepare for, these students were not as concerned with the group's success, especially as their concert was over a month away. The South students had no specific goal to work towards other than the daily class objective. Their motivation was strictly aimed at producing the music they were told to produce by Mr. H. For many students, this was unimportant, as they fooled around on stage or did not engage at all during the class period.

While numerous factors motivated the students to engage in their PME classes, some un motivating aspects emerged from my data collection. First, several students at South did not get to pick their classes, and the guidance team had placed them in Jam Time. The four students I interviewed enjoyed the class, but numerous others were disengaged and might have been enrolled unwillingly. Second, the PME classes at West and South were more controlled, less autonomy-supportive, and taught similarly to traditional formal school ensembles. West's ensemble was larger than the other two schools, with 65 students and only one teacher. Mr. K reverted to the controlling motivational strategies he had relied on in the past as a traditionally formal orchestra teacher. While these strategies helped newer students find success with playing their

instruments, his controlling techniques limited opportunities for other students to engage with the music in a preferred manner and receive support for their BPN. As a result, experienced students sought other music-making opportunities in class, such as the jam sessions, to find the BPN support they did not receive from playing the Concert Band pieces. Similarly, Mr. H at South conducted Jam Time's large ensemble similar to how a teacher might formally conduct an orchestra or jazz band. This process limited student interaction and decreased engagement. The structures at West and South did not motivate students to explore their instruments or perform music outside of the music their teachers had taught.

Summary

Students in the PME classes enrolled mostly from an intrinsic desire to make music and several students were motivated to enroll because of a friend's encouragement. The factors that motivated students to continue engaging in class were similar to why they enrolled, such as intrinsic motivation for making music and working with friends. Some students were motivated to engage through their connection with their teacher, while others were motivated by taking on the role of the teacher. PME classes that allowed for more student autonomy had higher levels of quality engagement from students. PME programs with teachers who resorted to controlling teaching strategies featured less student engagement, and students sought BPN support outside of the class structure.

Research Question 2

My second research question was, “To what extent do students in this sample of PME classes report experiencing BPN satisfaction?” Supporting students’ basic psychological needs is vital for the growth of PME classes, as music students are more likely to quit participation when their needs are thwarted (Evans et al., 2013). Supporting students’ basic psychological needs can help them internalize the values and expectations in the classroom and develop more autonomous forms of motivation. For the cross-case analysis, I examined the data regarding 1) relatedness; 2) competence; and 3) autonomy. Emergent themes for each of the psychological needs are explained.

Relatedness

To develop intrinsic motivation, students need to feel connected to their peers. People often adopt the values and practices of those they feel connected to or want to connect with (Ryan & Deci, 2017). This internalization especially happens in environments where people feel a sense of belonging. In the classroom, students’ sense of relatedness is closely tied to feeling liked, respected, and valued by their peers and teachers. Of the three psychological needs, relatedness is the strongest contributor to the development of autonomous motivation, and students experiencing high levels of support for relatedness experience more autonomous forms of motivation (Wang et al., 2019). In this study, support for relatedness was the most common theme from the collected data, and student’s relatedness satisfaction came from 1) close friends; 2) their peers; and 3) their teacher.

Friends. As discussed previously, friends played an important role in motivating students to enroll in and engage in PME classes. East, which had the highest student engagement and more intrinsically motivated students, was the case with the most visible friendships between classmates. By using more informal music learning strategies, the structure of East's PME class encouraged the growth of friendships. Unlike the West and South, students at East were allowed to work in whichever group they chose and often worked with the same groups of friends for numerous projects. South had the least opportunity for students to work with friends and had several students who sat alone during class. Several disengaged students at South found relatedness support amongst friends who also did not participate in class.

Connections with peers. Not every relationship with classmates needs to develop into a strong friendship, but feeling connected to peers can help support relatedness for students. While some of the students had developed more friendships than others, every student said they felt connected to their classmates. Working with their peers was an important component of relatedness support for students at West and South since there was less opportunity to work with friends. This helped students find connections in class, but not as strong as the connections built between students at East.

Students participating in popular music ensembles have demonstrated increased social skills and connections with their peers (Weiss et al., 2017), which was observable at East. Students relied on their peers to help them learn their chosen songs. Group members needed to communicate with each other and work closely together to create the finished product, with little help from Mr. G. When Eddie's guitar-playing friend insisted

on using the opening to “Despacito” in the performance, the group members needed to talk and coordinate how it might fit their arrangement. Eddie worked to include students, such as the drummer in his group, who might not have developed connections with the other classmates

Teacher Connection. As discussed earlier, the teacher-student relationship is an important part of student motivation. Students in all three cases mentioned feeling connected with their PME teacher. Each teacher spoke with students in a friendly and engaging manner. Students with the most engagement in class had stronger connections with their teachers. These students also were the more experienced students in each case. Meanwhile, students with lower motivation levels did not feel strongly connected to their teacher. These students also had less experience than their more motivated peers.

Discussion

When examining student motivation, Fedesco et al. (2019) suggested dividing the need for relatedness into subcategories: relatedness with peers and relatedness with the teacher. In their study, teacher-relatedness was a stronger predictor of motivation than peer-relatedness. However, students in my study were more engaged and motivated when they developed strong connections with their peers, regardless of their connection with the teacher. Working with friends was a crucial factor at East, where the students had the highest level of engagement and motivation in the three schools. Students at East had the most friendships and interacted little with their teachers. In a nonformal learning setting, the teacher acts as a facilitator and plays less of an instructional role. East students relied more on their peers to complete the classwork which helped to support their need for

relatedness.

The lack of relatedness satisfaction for students at West and South likely stemmed from Mr. H and Mr. K's teaching formal methods. They relied on more formal teaching approaches, which kept the teacher in charge of the learning. Students from both schools relied on the teachers to show them what notes to play and when. Particularly at South, students had fewer opportunities to work with their peers to learn music and problem-solve difficulties. The more formal class structure helped increase students' competence through frequently interacting with the teacher, who taught the specific information students required to play their pieces successfully. Yet, this thwarted their need for relatedness as students did not need to rely on their peers for help. West provided more opportunities to develop connections through sectional rehearsals, where students worked with more experienced members to learn the class song. However, Mr. K based the groups on instrumentation, not allowing students to make their groups. The students also relied on Mr. K's written arrangement of the pieces instead of learning songs by working with classmates to find the correct notes and create the arrangement.

Teachers at West and South also allowed motivated students to work independently, away from the rest of the class. In an effort to be autonomy-supportive, teachers encouraged a lack of connections between students. Teachers rewarded motivated students who had learned the classroom pieces with independent work away from the rest of the ensemble. These students would then develop fewer connections with classmates and receive less support for relatedness. East's structure allowed students to improvise and create original interpretations, encouraging group work and collaboration,

which helped build connections between students.

Students in two cases did not feel connected with their teacher. Rebecca did not feel connected with Mr. G, mainly due to the lack of interactions. Interestingly, by acting as a facilitator to the class, Mr. G provided more opportunities for students to support peer-relatedness but fewer opportunities to support teacher-relatedness. His autonomy-supportive teaching methods hindered his development of stronger connections with newer students. However, the more experienced students, who had enrolled in the ensemble for multiple years, felt connected with Mr. G. Due to the focus on peer interactions at East, teacher connections might take more time to develop.

The PME classes at West and South had built-in opportunities to support teacher-relatedness, as the students relied on them to learn their parts for the songs. The class structure at West and South allowed for multiple opportunities for the teachers to work with students individually or in small groups while limiting the need for students to rely on their peers. Unfortunately, increased connection with their teachers did not seem to support the students' need for relatedness, which they missed by not connecting with their classmates. The less experienced students at West quickly packed up their materials at the end of class to have more time to connect with their friends. Their need for relatedness kept them from participating in the end-of-class jam session. Similarly, the unengaged students at South found more relatedness support from their similarly unengaged friends than from the more motivated students or from Mr. H.

Competence

Students feel support for competence when they can meet the challenges of their classwork (Niemic & Ryan, 2009). When students find tasks too simple or overly challenging, it becomes more difficult to develop intrinsic motivation or internalize the values of the classroom. Students are more likely to give up music participation when their competence need is thwarted (Evans, 2015). When examining the data for competence support in the three PME classes, I found evidence connected to themes of 1) confidence; 2) optimal challenges; and 3) approximation.

Confidence. To help determine students' levels of support for competence, I asked how confident the students felt. As all the students I talked to were very motivated, it was unsurprising that they all mentioned being confident playing their instruments. Experienced and beginner students had high confidence in playing their instruments and engaging in class. Several students in each case were competent on multiple instruments and had been introduced to playing these instruments through their experiences in their PME classes. Sometimes, the teacher was a valuable source of competence support. Mr. H supported Beatrice's need for competence when he asked her to be the drummer for the large group project. Similarly, Mr. G's work with Alicia helped her gain confidence as a singer, and she has sung for every project she was a part of in Pop Ensemble. Students in all three cases reported performing music outside of class due to participating in their PME class.

Optimal Challenges. A sign that students were receiving support for competence and were experiencing more autonomous forms of motivation was their desire for more

challenging material. SDT posits that intrinsic motivation is generated when students can exercise and grow existing skills. Optimal challenges are the most effective in the context of autonomy. Being told to work on a harder piece is less effective at developing intrinsic motivation than if the student chooses the piece to work on. Most of the interviewees, who were all highly motivated, agreed on harder material to practice. Students from all three cases mentioned that harder material would teach them more and felt that harder material would prepare them for when they come across more challenging material in the future. Students also opted for material of medium difficulty, as it would be easier for their group members. Students from two cases who were already intrinsically motivated did not care about song difficulty as long as they could make music with their friends.

Approximation. Students at East and West found competence support in their classroom performance opportunities. In both cases, the students developed approximations of the songs they performed that fit with their group's instrumentation and varied ability levels. The improvisation and jam sessions at West featured large amounts of improvisation, and students frequently experimented with their musical choices during the performance. While it was not part of the class's objective, the jam session provided optimal challenges for more experienced students, like Justin and Alijah, as the concert pieces were not challenging. In both cases, students developed parts that matched their ability level and changed the arrangements of songs, which allowed more opportunities for the students to feel successful in their performance.

Discussion

The nonformal structure at East provided more opportunities for students to experience competence support. This occurred in particular when students were encouraged to create approximated versions of songs. Students frequently listened to and copied recordings to create parts that matched their ability levels. The nonformal class structure allowed for more autonomy where students were challenged to find ways to make their part fit with their group members. While the students at West and South had opportunities for increased autonomy, their goal was to perfect parts designated and notated by the teacher without knowing why learning this song was important. The lack of opportunity to create approximated performances left few chances for students to construct their part in a way that would provide optimal challenges, help them connect with classmates, and increase their levels of competence.

Creating approximated performances also helps lessen the effect of a teacher's controlling motivational techniques. Teachers often push students toward an ideal culminating performance in large music ensembles using controlling teaching methods. This can create an achievement paradox (Deci & Ryan, 2002), where the more a teacher uses controlling methods to motivate students, the less motivated students become, creating a lower-quality outcome. Teachers like Mr. G at East created a less controlling environment that allowed students to create approximated performances, where students were in charge of what their final performance would sound like. They were no longer focused on performing a perfect rendition of the notes given to them by a teacher. As discussed earlier, this also allowed students to experience increased support for

relatedness by building connections with classmates they needed to collaborate with to create their finished product.

The jam sessions at West created similar support for competence and relatedness, although through a more disruptive class atmosphere. For the more experienced students, the songs played in class did not provide optimal challenges. The jam sessions allowed students to experiment and stretch their musical skills while supporting relatedness with their peers. While the students were engaged in competence-satisfying music-making, they had poor-quality engagement as their jamming did not meet the class expectations. The poor-quality engagement affected Mr. K's motivational strategies, and he resorted to more controlling methods of motivation. His controlling actions would then negatively affect the students' motivation quality and influence their engagement in class. The jam sessions were also unmotivating for less experienced students like Nara and her friends, who were quick to pack up and did not participate. Like most beginning students, Nara relied on Mr. K to show her what to play and would not have been comfortable joining in without being told what to play. Similarly, at South, students could only play the songs Mr. H taught them. They would have needed more support for competence to spontaneously make music in front of their peers.

While students wished for harder material to work on, the structures at West and South prevented students from seeking harder material to perform. The teachers at West and South told students what to play during class. The students chose the songs, but the choices were not based on the difficulty level. Students would be unaware of how hard the song would be until their teachers handed out the parts. Meanwhile, East students

could choose complicated songs or work with more experienced musicians, which would help them find optimal challenges for their skill level. The increased level of student autonomy at East complimented the support of students' competence satisfaction. Like the relatedness satisfaction discussed previously, East's class, which incorporated more informal music learning strategies, provided more opportunities for students to find competence support.

Autonomy

Support for autonomy is the most vital psychological need for students to develop more autonomous forms of motivation (Deci & Ryan, 2017). When students perceive support for autonomy, they will likely perceive support for relatedness and competence as they choose activities that relate to personal interests and allow them to connect with friends. Teachers support a student's need for autonomy by offering choices and limiting the controlling language and behavior used in the classroom. The students' level of perceived autonomy support in the three observed PME programs was high, and all students agreed they had control over the classroom decisions. Each case had opportunities for students to choose instruments and songs to perform. All the interviewees indicated support for autonomy by mentioning they had never felt pressured by their classmates or teachers.

Discussion

The school with the most support for student autonomy was East, which also had the most engagement. Again, East's PME class was less formal than the programs at West and South and offered more opportunities for students to find autonomy

satisfaction. Students worked in self-selected groups, chose which songs to work on, and learned music by listening to and copying recordings. Some students practiced their parts at home, even though it was not expected or required as part of the class. Students were allowed to change instruments and groups based on the requirements for the current assignment, which created an atmosphere where engagement was high. By creating more opportunities to support students' need for autonomy, Mr. G created more chances for students to find support for relatedness and competence.

In all three cases, students did not always get to play the song they wanted. At South and West, students worked as a class to pick songs to perform, and students' autonomy support would be thwarted when their song choice was discarded. Similarly, one group at East was less engaged than the other small student groups. When the students suggested songs, Mr. G eliminated some of the initial suggestions because they garnered little interest from classmates. Students at South also had a limited choice of instruments and were often dejected when they did not get to use their preferred instrument. Mr. H assigned a few instruments, such as guitar and drums, to the more motivated students. Assigning instruments not only thwarted the autonomy satisfaction of other students who wanted to play those instruments, but it also thwarted the autonomy of the motivated students chosen to perform those instruments. For example, Amari's favorite instrument was drums, yet he was chosen to play guitar as he had performed well on a previous assignment.

Regardless of the autonomy-thwarting practices, every student agreed they had a voice in the class decisions. This is important to student motivation, as students'

perceived support for autonomy can affect their motivation, even if the teacher provided less autonomy than the student believed. Haerens et al. (2018) found that students in a physical education class were less motivated when they viewed their teacher as controlling, even when the teacher was acting to support autonomy. Students at West and South experienced less autonomy support but perceived that they were receiving more, likely from the opportunities to suggest songs to perform and choose instruments. This helped keep students engaged in situations that did not fully support their BPN. However, to promote the growth of intrinsic motivation, Mr. H and Mr. K would need to incorporate more opportunities for students to experience autonomy in their classrooms beyond the choice of songs and instruments. The teachers' controlling motivational strategies diminished the student's actual level of autonomy.

Finally, less experienced students like Rebecca and Nara felt they had less control over classroom decisions. They mentioned not being comfortable making decisions for the group because of their inexperience. Interestingly, Rebecca and Nara were two students who experienced less support for relatedness and competence in their PME classes. Increased opportunities for one psychological need, such as autonomy, might help less experienced students develop more support for their other psychological needs.

While aspects of each case were unsupportive of students' psychological needs, this does not mean that the classes were ineffective at providing meaningful musical experiences for students. Each case successfully pulled in non-traditional music students who would not have enrolled in traditional school ensembles. Most students were engaged and performed some impressive music during my observations. West and South,

however, could benefit from incorporating a nonformal structure similar to East's, as this could possibly improve engagement levels and help better support students' psychological needs.

Summary

Students received support for relatedness from several sources in their PME classes, with friends being the most prominent. When the class structure provided more opportunities to work with friends, students experienced more support for relatedness. Students who experienced less support for relatedness were also less engaged than students with more support. The lack of relatedness and engagement was most relevant for students new to the class or new to playing instruments. The more experienced students were also the students with more friendships in class. Their level of competence allowed them more opportunities to seek out friendships and relate to classmates with similar abilities. When teachers employed controlling motivational methods, they limited the chances for students to create meaningful connections with classmates, which resulted in less peer support for relatedness.

All of the students felt support for competence, and classes that were more autonomy-supportive helped better support competence in students. Newer students experienced less competence support, which kept them from reaching out to more students, building more connections, and participating in extra-musical activities. All the students spoke of experiencing support for autonomy. The case with the most autonomy support incorporated more aspects of informal music learning. All the students agreed that they had a voice in the classroom decisions, although in two cases, students had

limited control over the classroom structure. No student felt pressured to act in specific ways.

Research Question 3

In addition to autonomy, competence, and relatedness satisfaction, additional aspects of SDT, such as autonomy-supportive teaching and extrinsic regulations, can affect the development of students' BPN satisfaction. Themes connected to autonomy-supportive teaching and the various forms of external regulation appeared regularly in my data collection. My third research question was, "To what degree are autonomy-supportive teaching and the various types of external regulation associated with student motivation within PME classes?" Cross-case themes that emerged from that data were 1) autonomy-supportive teaching; 2) external regulation; 3) introjected regulation; and 4) identified and integrated regulation.

Autonomy Supportive Teaching

Much of the students' motivation to engage in their PME classes came from the autonomy support their teachers provided. When teachers support student autonomy, their words and actions help students experience BPN satisfaction (Niemic & Ryan, 2009). Reeve (2012) stated that the role of the teacher is not to create motivation but to support the inner motivational resources that students bring to class. By supporting these resources, students develop high-quality engagement and autonomous forms of motivation. All three teachers provided different levels of autonomy support. The amount of autonomy support they provided was connected to how formal their classroom structure was. The teachers of PME classes with a nonformal structure, like the class at

East, had more autonomy-supportive interactions than the more formal classes. This allowed more students to experience BPN satisfaction. Mr. G provided the most autonomy support as his class structure allowed students to connect personal interests to the classroom through student-chosen music, self-selected friend groups, and instrument selection. Mr. H and Mr. K were also autonomy-supportive, but less so than Mr. G. They spoke positively to students and encouraged them to work hard. Still, Mr. K and Mr. H relied on more formal teaching methods and were responsible for most classroom decisions. Students, in turn, were less engaged in classroom activities and did not have as much support for their psychological needs.

Burg (2023) found that teachers in PME classes provided autonomy to students based on the amount of autonomy they thought students could handle. Teachers provided less autonomy support for less experienced students. Similar patterns were found in this study within the structure of Concert Band and Jam Time. More experienced students at West and South were given more opportunities to engage in activities that supported BPN satisfaction, such as working independently, composing songs for the class, and using preferred instruments for group performances. Students with low amounts of engagement had fewer options for instrument choices and song selection.

External regulation

While there was no evidence of rewards or punishments used to motivate students, two of the cases had an unintentional system of rewards for the more motivated students. Mr. H and Mr. K rewarded high-achieving students, such as Amari and Justin, by allowing them to work independently on separate activities that interested them. These

teachers, perhaps unknowingly, established a system of extrinsic rewards by rewarding students who excelled in class and followed expectations.

Introjected Regulation

In each case, students spoke of motivation through introject regulations. They mentioned things such as needing to improve and not wanting to be the worst student in the group. Several students feared looking bad in front of their classmates. They experienced motivation by introjected regulations to practice their parts, as a performance would negatively affect their self-esteem. The students motivated by introject regulations often had less support for relatedness and competence in the PME classes.

Autonomous Regulation

When students begin to internalize the values of a classroom, they begin to experience more autonomous forms of regulation. Several students across the three cases experienced motivation through identified and integrated regulations. They spoke of not letting their group down and would often change instruments or try new instruments based on what the group needed for a successful performance. Students were motivated and engaged in the classroom activities even if they performed songs or on instruments that did not excite them. Their motivation to work harder came from supporting their group and classmates. The more a class supported students' BPN, the more students were motivated through identified and integrated regulation.

Discussion

When examining my data for BPN satisfaction, it was quickly apparent how important autonomy-supportive teaching was for students to find satisfaction. Whenever

a student received support for one of their BPN, it resulted from an autonomy-supportive strategy that their teacher employed. Mr. G at East was the most autonomy-supportive of the three teachers, as he also incorporated more components of informal music learning in the classroom. His autonomy support helped East students internalize the classroom expectations and values, which enhanced their motivation. However, his instructional approach as a class facilitator sometimes interfered with connecting with students like Rebecca. Yet, this connection could improve as she spends more time in Pop Ensemble and has more opportunities to interact with Mr. G. This could be seen with the older students from East and West who had re-enrolled in their PME class for several years and developed strong connections with their teachers.

While the teachers at South and West did not intentionally reward or punish students, their decision to allow motivated students to work independently could be seen as a reward from the other students. Those students who played better and participated more were rewarded with opportunities to work independently in an unsupervised area, away from their classmates. Other students would then be motivated to learn their parts more, not to improve their musicianship but to earn opportunities for unstructured free time during the class. The more experienced students at West wanted to play more interesting music. They were rewarded for their spontaneous jams when Mr. K allowed them to continue, ignoring his instructions to stop playing. This would motivate more students to join in with jamming students, allowing more students to find relatedness and competence support while also creating more frustration with Mr. K and increasing his controlling teaching methods.

Several less experienced students were motivated by introjected regulations, suggesting that their classmates would think less of them if they played poorly. Students' sense of relatedness support is linked to feeling valued and respected by their peers and teachers. The teachers showed the more experienced students more respect in all three cases. They took on leadership roles in the class and were given more autonomy than less experienced students. The more experienced students also had more connections with their classmates. For newer students, increased abilities would be seen as a way to increase respect from classmates and the teacher. These students would have to demonstrate their ability to correctly play their parts to increase support for teacher-relatedness.

This connection between relatedness and competence is complicated and could harm the motivational growth of beginning students. Support for all three psychological needs is necessary for students to develop intrinsic motivation. Beginning students at South and West often lacked competence on an instrument and, therefore, might also lack support for relatedness. However, this was not the case at East, where students were given more autonomy and were expected to work together to complete the class project. Mr. G's autonomy-supportive teaching and nonformal class structure allowed more experienced students like Eddie to help beginning students and to develop a sense of pride and responsibility to help their peers. The opportunity to learn from peers, which was lacking at South, helped newer students find competence support by improving their performance and experiencing support for peer-relatedness. This data reflects the findings of Gramm's (2021) examination of peer mentoring within a PME ensemble. In his study,

students' friendships were strengthened through the teacher's action as a facilitator. This allowed more students to take on leadership roles in the class, and "students were validated through the process as opinions, knowledge, and direction were seen as worthy of being included in the dynamic of the group" (p. 257).

When Alicia, Kiara, and Sam spoke of their need to improve their parts, it was not out of a desire to impress classmates but more from a need to not disappoint their group members. They were less motivated by introjected regulations and more motivated by identified regulations through the need to help and support their classmates. The group's success was important, and they did not want to let the group down. These students could be starting to identify as musicians and band members, and they would understand their classmates would be relying on them to play their part correctly. Ensuring the group's success is what a good musician would do. Alicia and Sam were also students at East, where the class structure had better support for students' psychological needs than the programs at West and South. Mr. G provided autonomy support, which allowed Alicia and Sam to be motivated through more autonomous forms of regulation. Meanwhile, Kiara was intrinsically motivated to learn guitar. She may not have had intrinsic motivation to engage in Concert Band, but playing her part correctly for the group was important to her identity as a guitar player.

It is possible that Alicia or Sam did not want to look incompetent in front of their group members. Yet, their joyful demeanor during rehearsals and camaraderie with their classmates made it seem they were less concerned with trying to impress anyone with their abilities. However, the groups still needed to perform for the rest of the class, and

avoiding embarrassment could be a motivating factor. People are exposed to multiple forms of regulation with varied strengths (Ryan & Deci, 2017), so Sam and Alicia were most likely experiencing varied levels of motivation from introjected and identified regulations.

Summary

Autonomy-supportive teaching was a significant factor in helping students receive BPN satisfaction. The students in the more autonomy-supportive classrooms showed more evidence of satisfaction for their BPN. When teachers incorporated more informal music learning techniques, they were more autonomy-supportive of their students. Students in PME ensembles experienced different forms of regulation. Two cases had created an unintentional reward system for more motivated students, which allowed them time to work independently. Several students experienced introjected regulation from fear of embarrassment of playing poorly in front of their peers. The students from the more autonomy-supportive teacher were motivated through identified regulations. They had begun to identify as musicians and were motivated to engage because they felt the need to make the group sound better.

Implications For Practice

The findings of this study have implications for teachers looking to start PME programs or increase students' motivation and engagement in their classes. Students enrolled in these ensembles for several reasons, with the primary reason being their intrinsic desire to make music. Teachers can take advantage of students' intrinsic desire to make music by connecting classroom activities to students' personal musical interests.

Before enrolling in their PME class, several students from this study had negative school music experiences. Yet, these students still sought out music-making experiences that connected with the popular music they enjoyed. As PME classes are not as common as more traditional ensembles in secondary schools in the US, promotional materials and recruitment might be necessary to promote the class and increase initial enrollment.

For teachers to create authentic music learning experiences that support students' BPN, teachers need increased opportunities to learn popular music pedagogies. University music education programs offer limited chances for preservice music teachers to engage with popular music pedagogies. In an examination of preservice music education majors, Xu (2023) found that 77% had never been taught popular music pedagogies in their undergraduate curricula, which led to feelings of unpreparedness to teach popular music. To better prepare future PME teachers, music education programs should expand curricular offerings to allow preservice teachers to interact with practices in this area.

Additionally, with the continued growth of PME programs, current practicing music teachers need more opportunities to learn popular music pedagogies. Two of the teachers from this study had no training in PME, yet saw its value and were eager to incorporate popular music into their school music programs. With additional PME training, teachers could provide nonformal classes that create authentic popular music learning experiences for students. Professional development workshops have been shown to be an effective format for PME teacher training (Dorfman, 2020). By increasing the availability of professional development in PME, "participants would become more

accustomed to the types of environments that often emerge from these experiences” (Dorfman, 2017, p. 292). As a result, students would benefit from music learning experiences that support their BPN, creating self-determined motivation to engage with music both inside and outside of the classroom

The study also highlights the importance of supporting students’ BPN, especially the need for relatedness, in the music classroom. Friends were an important factor in enrollment and continued engagement for students. Class engagement could benefit from increased opportunities for students to work with friends and develop more connections in the class. Students in this study with more relatedness support also demonstrated more confidence in their performance. Teachers, therefore, could develop and encourage opportunities for students to develop stronger connections with classmates, which could help students build more musical competence.

Autonomy-supportive teaching practices were also valuable in helping students experience BPN satisfaction. The more autonomy-supportive a teacher was, the more BPN support students received. This was also connected to the formal/nonformal structure of the class. Nonformal classes offered more opportunities for students to receive BPN support, as this teaching approach incorporated more autonomy-supportive teaching strategies. Scholars have often mentioned the need to incorporate PME authentically (Cremata, 2019; Parkinson & Smith, 2015) by engaging students in popular music-making, similar to how popular music is created outside schools. This research supports those statements, as many of the positive outcomes from this study were found within the PME program at East. Mr. G incorporated more nonformal music learning

techniques than Mr. H and Mr. K, which allowed the students to engage in music-making that differed from traditional school music ensembles. This study highlights this request for authentic music production by showing that students are more engaged, and experience greater BPN satisfaction, within ensembles that incorporate nonformal music learning techniques. Teachers looking to increase student motivation in PME classes should examine their class structure and find more opportunities to include nonformal music learning. Increased options for student choice and the ability to work in self-selected peer groups could help students find more BPN support, which would help them develop more autonomous forms of motivation.

Providing opportunities for experienced students to teach their peers can help support students' relatedness and competence needs. Learning from peers is authentic to popular music and is one of the components of Green's (2002) research on how popular musicians learn. Experienced students from this study were excited to share their knowledge with their peers and embraced the opportunity to help their classmates. The less experienced students from this study often demonstrated less BPN support. Student leaders can help support the relatedness and competence needs of newer students. Teachers can structure activities to allow collaboration with friends and encourage group projects or organize class jam sessions to build a sense of community within the class. This sense of belonging can further reinforce motivation and engagement.

The teachers from this study who employed more controlling teaching methods in their classes also had students with lower-quality engagement. Controlling teaching methods limited the support for students' BPN. The less support students perceived, the

lower their level of engagement. Teachers can avoid this by opting for more autonomy-supportive teaching methods. Students in this study benefited from a clear classroom structure that coordinated with increased student autonomy. Teachers can design units that allow students more opportunities to work with peers. Projects should have opportunities for students to choose songs and how to perform them. Focusing less on perfect performance can also help motivate students to create creative approximations of songs and engaging performances. Teachers can increase student motivation by having students focus more on approximation and less on perfecting a performance.

The students with the highest engagement from this study also had developed connections with their teachers. The students who were less connected with their teacher were newer to their PME ensembles and had less experience performing music than their peers. Building positive relationships with students and demonstrating care for their learning can enhance motivation. Teachers should work to create a welcoming and autonomy-supportive environment, making students feel valued and empowered, especially those students who are less experienced and new to the class.

Finally, class size should be considered for teachers looking to create a PME program. Based on this study, smaller group sizes appear to be more conducive to engaging with popular music in an authentic manner. The extremely large class size at West made it difficult for Mr. K to teach in an autonomy-supportive manner, negatively impacting students' motivation and musical growth. Meanwhile, East's class size allowed the class to fully incorporate nonformal music learning techniques. Mr. G was able to use a more autonomy-supportive approach when interacting with students. Mr. G also

utilized several different spaces in East to allow student groups to work independently. These spaces existed at South and West but were not incorporated into the class structure regularly. Thus, the students at East demonstrated more high-quality engagement and intrinsic motivation than the students at West and South.

Future Research

Future research on motivation in popular music ensembles could examine the relationship between SES and student motivation in PME. The schools examined in this study mirrored the research findings, which showed that higher SES schools provide more music opportunities than lower SES schools (Abril & Gault, 2008). Similarly, schools of lower SES status receive less funding and support for arts programs than higher SES schools within the same district (Costa-Giomi & Chappell, 2007). Scholars have also found that elementary teachers employ less autonomy support to students with lower socioeconomic backgrounds (Bloem et al., 2022). Students from East, with more student engagement and BPN support, had a higher SES status than those at West and South. The program at East had access to updated facilities and newer equipment purchased specifically for their Pop Ensemble class. Meanwhile, West's programs had far fewer resources than East and struggled to increase funding as a large amount of the district's arts programs went towards an arts magnet school.

Two teachers in my study had no training in popular music pedagogies. Effectively running a PME ensemble that is motivating and engaging differs from conducting a jazz band or orchestra. Teachers notice the value of incorporating popular music into their classrooms but often feel unprepared and lack the training to integrate

popular music pedagogies (Springer, 2016). Yet, when teachers received PME training, they reported increased effectiveness in running popular music ensembles (Dorfman, 2020). As PME increases in the United States, researchers could examine how teacher preparation programs can incorporate more training in PME pedagogies. Allowing teachers to explore popular music teaching methods would increase their knowledge of how they could integrate PME into their classroom and apply proper methods of motivation to increase student engagement.

Like other strands of music education, PME has struggled with issues of gender equity, including the perpetuation of gender norms (Björck, 2011), reinforced patriarchal structure (Barna, 2023), and limited LGBTQ+ representation (Bylica & Wright, 2011). Researchers found that male and female students often rehearse and communicate in distinct ways within PME ensembles (Abramo, 2011; Jaffurs, 2004). Additionally, female students have been shown to value music classes more than male students and tend to report stronger beliefs in their musical competence (McPherson & Oniel, 2010). These factors can complicate efforts to understand how gender influences the nature and quality of student motivation. Future research could explore how PME incorporates inclusive pedagogies and critical conversations around identity and representation to support the motivational needs of all students. By understanding how gender intersects with students' sense of autonomy, competence, and relatedness, educators can create more equitable and motivating learning environments for PME.

This study pointed out a few interesting connections between motivation and PME classes, and more in-depth research might develop a better understanding of these

connections. First, when teachers taught in a more controlling style, they often created more opportunities to develop connections with students. At the same time, some accommodations provided to students were autonomy-supportive but limited the chances for students to receive relatedness support from their peers. A more in-depth study could examine the details between controlling teaching, autonomy support, and relatedness support with teachers and peers.

Second, a connection was drawn between support for competence and support for relatedness. Less experienced students demonstrated less relatedness support, while more experienced students showed signs of more relatedness support. More research would be needed to expand the connection between these two psychological needs in the music classroom. PME research often examines autonomy, competence, and relatedness as a collective unit, and rarely are the three needs examined individually. This research highlights the need to examine how psychological needs act independently of each other or in tandem with one another.

Third, some of the students' comments could be interpreted as examples of either introjected regulation or identified regulation. While students could likely be experiencing both regulations to varying degrees, more conversations with the students could help determine which regulation was more motivating. A larger sample size with more opportunities for follow-up questions would also provide more detail on students' BPN satisfaction. In one case, the students to be interviewed were chosen by the teacher and were the most highly engaged, so I did not gather the most comprehensive data regarding student motivation in that class.

Finally, a longitudinal study would help provide data on the long-term effect of PME on students' decision to continue engaging with music outside of the classroom and post-schooling. This study explored why students engage, but there is a lack of research examining the musical experiences and knowledge students gain in PME. Students in this study were intrinsically motivated to play and make music. A few students joined music-making opportunities outside of school because they participated in a PME ensemble. Yet, it is unclear if this intrinsic motivation will help students continue engaging in music-making post-schooling or if the experiences they gained with a PME class have helped them to increase their musical knowledge.

Conclusion

The aim of this study was to examine the motivational factors and psychological needs satisfaction of students enrolled in three popular music school ensembles. Researchers have found these ensembles can increase students' motivation to enroll and engage in music courses (Chen, 2020; Koops et al., 2014), but it is unclear what aspects of PME classes motivate students. PME ensembles can differ in structure, with teachers incorporating varied amounts of controlling and autonomy-supportive motivational strategies. Teachers often have misconceptions about students' motivational sources. When teachers understand how student motivation is developed, they can help students internalize the value of music-making and help students develop intrinsic motivation for music-making.

My findings highlight the various components of student motivation within PME classes. Students primarily enrolled from an intrinsic desire to make music and because

they were encouraged by friends. Students were motivated to engage in PME classes due to their intrinsic motivation for music-making and their connections with classmates and their teachers. Some students also found motivation through taking on leadership roles in class and helping less experienced students.

Students from this study experienced various levels of support for their BPN. The more experienced students received more BPN support and were intrinsically motivated to engage in class. Student competence support was found to be connected to relatedness support, as more confident students developed numerous connections with peers in their PME class. In contrast, newer students were less confident in their musical abilities, requiring more experience to develop the connections and confidence that would help produce more autonomous forms of motivation.

BPN satisfaction was less common in classes where the teacher taught in a more formal manner and used controlling motivational strategies. Meanwhile, the use of a nonformal learning structure had a positive effect on student motivation. By incorporating nonformal music learning strategies, the teacher employed more autonomy-supportive techniques that greatly benefited students' motivation. The nonformal class had more students motivated through autonomous forms of regulation. These students had begun to internalize the values and expectations of their PME class and were motivated to improve their group's performance. The classes with a more formal structure had less engaged students, and the teachers taught with more controlling techniques, hindering intrinsic motivation growth.

My hope is that this research helps contribute to the understanding of student motivation in music education. The value of nonformal music learning can be found in the numerous ways that students from this study experienced BPN satisfaction. The number of popular music ensembles has grown in the U.S., but many risk being taught in a formal, controlling manner that may limit student motivation. Through incorporating nonformal learning techniques, teachers can become more autonomy-supportive in their classes and help students develop intrinsic motivation.

APPENDIX A: INTERVIEW PROTOCOL

Questions that were used to guide the semi-structured interview are as follow:

General Information about the class and participation:

1. How did you become a part of this popular music class?
2. How important is music in your life?
3. Suppose I were a new student considering taking this class and I asked for your advice on whether or not to sign up. What would you tell me and why?
4. What has contributed to your learning and success in this class?

Autonomy

1. Tell me about an average day in rock band class. How are songs chosen? How are instruments chosen? Do you change instruments throughout the class?
2. How much control do you have over musical decisions/group decisions?
3. How did joining class affect your motivation to make music outside of class?
4. Do you feel pressured to do other things in class or act in a specific way in class?

Competence

1. How confident do you feel about playing your instrument?
2. How has this class influenced your beliefs about your own ability to learn?
3. How much do you enjoy practicing outside of class? Why do you practice?
4. Would you rather play a song that is (a) extremely hard but you learn lots of new ideas, (b) a little challenging and learn a few new ideas, or (c) a song that you could play easily but not learn anything new from?

Relatedness

1. Are you excited to come to class? Why or why not?
2. How well do you work with your classmates? Do you feel connected to your teacher? Classmates?
3. How important is it to have friends in the class?
4. How would you describe the way your teacher teaches/runs this class?
5. How do the people around you motivate you to participate, work hard, to be your best?
6. How have your friends/family outside of class been supportive of your participation?

APPENDIX B: ASSENT AND CONSENT FORMS

Assent Form for Student Participants

Dear Music Student,

My name is Kevin Coyne, and I am a middle school music teacher and a doctoral student in music education at Boston University. I am conducting a research study in your music class and would like you to be a part of my research.

What is a Research Study?

Research studies help us to learn new things and test new ideas. People who work on research studies are called researchers. During research studies, the researchers collect a lot of information so that they can learn more about something. As a music teacher, I am interested in knowing why students like yourself sign up and play in popular music ensembles. I am asking you to be a part of this research study because you are part of your school's popular music group. I want to know what motivates you to play in your band!

What will I do if I am in this research study?

If you decide to be in this study, you may be in the classroom during the time your teacher is being observed. There may be times that your class will be video recorded, and you may appear in part of that video recording. Throughout the next three weeks, your teacher and I will be selecting three students from your classroom to interview for a total of 30 minutes each about your music class. All interviews will take place in your music teacher's office or classroom with your music teacher nearby. If you are selected as one of the three students that I will interview, I will audio record the interview sessions that are part of this study. This will help me to remember what we talked about. No one else but me will be listening to the audio recordings after our interviews.

What else could happen to me while I am in this study?

If you agree to be a part of my study, there are no risks to you participating. Nothing bad will happen to you because you decided to be a part of this study.

If I join this study will it help me?

Being a part of my study will not help you directly. However, it will help me to learn what motivates students to join music groups like the one you are in. I might learn something from this study that will help music teachers motivate other students to join music groups like yours. The results of this study will be available to people who work with music teachers in order to help them motivate students to play music.

What will happen to my information in this study?

I will not tell anyone or share your name or other information about you if you join this study. None of the information gathered about you will be shared with any

teachers or staff at your school or in the school district except if you are in serious danger. All recordings from the study will be destroyed once the study is complete.

Taking part in this research study

You do not have to take part in this research study. You can say ‘Yes’ or ‘No’. If you say yes and change your mind, all you have to do is tell me you want to stop. Your parent or guardian can also decide to have you stop taking part in this study. Your participation in this study is entirely voluntary and will not affect your grade in any way. You and your parents/guardians can take time to look over the information about this study before they decide that you can or cannot participate.

Contacts

If you have any questions about this study, you can email me at kcoyne73@bu.edu. Your parent/guardian may also contact Dr. Jay Dorfman, my dissertation advisor, at any time at jdorfma2@kent.edu or by calling [REDACTED]. I will also give you a copy of this paper if you want.

By signing my name below, I agree to volunteer as a participant in this study. I understand that all information about me will be kept strictly confidential and that my participation will not affect my grade. I also understand that I can decide not to continue to participate in this study at any time.

Student Name (Please Print)

Student Signature

Date

Consent Form for Parents/Guardians of Student Participants

Protocol Title: I wanna rock! Self-determined motivation in secondary popular music ensembles
Principal Investigator: Kevin Coyne
Description of Study Population: High school students enrolled in a school popular music ensemble
Version Date: 7/8/23

Study Summary

This research study aims to examine what motivates students to enroll and participate in a high school popular music ensemble. Participants taking part in this study will take part in a brief interview that will last no longer than 30 minutes. The researcher will also observe the class once to see how students interact, which will require nothing from the students involved beyond their normal classwork. Any student in the study is at no risk for taking part in this research study.

Introduction

Please read this form carefully. The purpose of this form is to provide you with important information about taking part in a research study. Please ask us if you have any questions about the research or any portion of this form. Taking part in this research study is up to you. If you decide to allow your child to take part in this research study, we will ask you to sign this form. We will give you a copy of the signed form.

Kevin Coyne and Dr. Jay Dorfman are the people in charge of this study. Kevin Coyne, the primary investigator, can be reached at kcoyne73@bu.edu. Dr. Dorfman is that faculty advisor and can be reached at jdorfma2@kent.edu. We will refer to Mr. Coyne and Dr. Dorfman as the “researchers” throughout this form.

What should I know about a research study?

Participation in research is voluntary, which means that it is something for which you volunteer. It is your and your child’s choice to participate in the study or not to participate. If you or your child chooses to participate now, you may change your mind and stop participating later. If you or your child decides not to participate, that decision will not result in any penalty or loss of benefits to which you are otherwise entitled.

Why is this study being done?

The purpose of this study is to determine what factors motivate students to enroll and participate in high school popular music ensembles. Information will be gathered and analyzed to help teacher better understand student motivation. Teachers will be able to use this information to better assist students in these ensembles, maintain student retention, and create opportunities for more students to enroll in school music ensembles.

We are asking your child to take part in this study because they are currently enrolled in a popular music ensemble. About nine students from different schools will take part in this research study at Boston University.

How long will your child take part in this research study?

We expect that your child will be in this research study for 1 week. During this time, your child will be involved in one 30-minute interview that will take place at your child's high school. Your child will also receive an email with the transcript of the interview within a week's time to verify that all the information is correct.

What will happen if I take part in this research study?

If you agree to have your child participate in this study, we will ask you to sign the consent form before conducting any study procedures. Once we have your approval, we will contact the school to determine an appropriate time and place to conduct a brief, 30-minute interview. After the interview is complete, the researcher will share their email address with your child in case your they have any additional information regarding the interview questions that they may like to share. Shortly after the interview, your child will receive a transcript of the interview for them to review. This will allow your child to make sure all the information in the interview was recorded and interpreted correctly. Once they have returned the transcript, your child's involvement with the study will be complete.

What are the risks of taking part in this research study?

There are no known risks for taking part in this study.

Loss of Confidentiality

The main risk of allowing us to use and store your information for research is a potential loss of privacy. We will protect your privacy by labeling your information with a code and keeping the key to the code in a password-protected computer. You will be informed of any significant new findings developed during the course of this research which may affect your willingness to continue participation.

Mandated Reporting

Reporting disabled individual/child/elder abuse, if applicable: If, during your child's participation in this study, we have reasonable cause to believe that child abuse is occurring, the researchers must report this to authorities as required by law. The researcher will make every reasonable effort to protect the confidentiality of your research information. However, it might be possible that a civil or criminal court might demand the release of identifiable research information.

Reporting Suicidal Risk: If, during your participation of this study, we have reason to believe that your child is at risk for being suicidal or otherwise harming yourself, we are required to take the necessary actions. This may include notifying your doctor, your therapist, or other individuals. If this were to occur, we would not able to assure confidentiality.

Reporting Sexual Misconduct, Sexual Harassment and/or Sexual Assault: If you are a member of the Boston University community and you report sexual misconduct to study personnel, including as part of study procedures, we are mandated to report the misconduct to the Boston University Title IX Coordinator. Members of the Boston University community include students, faculty, staff, affiliates, visitors, applicants for admission or employment, and independent contractors. [Sexual misconduct](#) includes sexual assault, sexual harassment, dating violence, domestic violence, stalking, and sexual exploitation. If you have questions, please review the [BU Title IX policy](#), contact the Title IX coordinator, the Study Investigator, or the IRB Office.

Are there any benefits from being in this research study?

There are no benefits to you from taking part in this research.

What alternatives are available?

You may choose not to take part in this research study.

Study Participation and Early Withdrawal

Your child’s participation in this study is your choice. You are free not to take part or to withdraw at any time for any reason. No matter what you decide, there will be no penalty or loss of benefit to which you are entitled. If you decide to withdraw your child from this study, the information that you have already provided will remain in the data set and be kept confidential. Withdrawing from the study will not affect your child’s grade in any way.

Audio/Video Recording

We would like to audio-record your child during this interview. If your child is audio-recorded, it will not be possible to identify them. We will store these recordings on our computer and only approved study staff will have access to the recordings. We will label these recordings with a code instead of your child’s name. The key to the code connects your name to your recording. The researcher will keep the key to the code in a password-protected computer for no more than one month.

Do you agree to allow us to audio record you during this study?

_____ YES _____ NO _____ Participant Initials

How Will You Keep My Study Records Confidential?

We will keep the records of this study confidential by storing the records on highly secure, password-protected devices. We will make every effort to keep your records confidential. However, there are times when federal or state law requires the disclosure of your records.

The following people or groups may review your study records for purposes such as quality control or safety:

- The Researcher and any member of their research team
- The Institutional Review Board at Boston University. The Institutional Review Board is a group of people who review human research studies for safety and protection of people who take part in the studies.
- Federal and state agencies that oversee or review research
- Central University Offices

The study data will be stored on a secure Boston University server.

The results of this research study may be published or used for teaching. We will not include identifiable information on data that are used for these purposes.

Future Contact

We would like to keep your child’s contact information to either follow up with this study or to see if you are interested in other studies taking place at Boston University.

May we contact your child in the future?

_____ YES _____ NO _____ Participant Initials

Will I get paid for taking part in this research study?

We will not pay you for taking part in this study.

What will it cost me to take part in this research study?

There are no costs to you for taking part in this research study.

Who do I ask if I have questions or concerns about this research study?

Please contact us with any concerns or questions about the research, or any research-related problems:

Kevin Coyne: kcoyne73@bu.edu
Dr. Jay Dorfman: jdorfma2@kent.edu

If you have questions about your child’s rights as a research participant, or if you have any complaints or concerns and want to speak with someone independent of the research team, you may contact the Boston University Charles River Campus IRB at 617-358-6115. The [IRB Office webpage](#) has information where you can learn more about being a participant in research, and you can also complete a Participant Feedback Survey.

Statement of Consent

I have read the information in this consent form including risks and possible benefits. I have been given the chance to ask questions. My questions have been answered to my satisfaction, and I agree to participate in the study.

SIGNATURE

Name of Study Participant

Signature of Study Participant

Date

I have explained the research to the research participant and answered all their questions. I will give a copy of the signed consent form to the participant.

Name of Person Obtaining Consent

Signature of Person Obtaining Consent

Date

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