Student-Led Music Curriculum: Achieving Self-Regulated Learning through Project-Based and Inquiry-Based Pedagogies

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Abstract—The music curriculum contains multiple disciplines, all intertwined through standards, objectives, and goals. The 21st-century learning practices emphasize music pedagogy's applied purposes from performative and academic perspectives while outweighing the exam-driven nature to generate motivation and appreciation for music. This research defines curricular innovations that allow for a student-led music program with a particular emphasis on performative components of music education that – along with project-based and inquiry-based pedagogies – align students on a path to self-regulated learning. The paper discusses and analyzes the structures evoked by educators to allow students to produce a dynamic student-led curriculum. Furthermore, the article outlines the motivational advantages that the revised curriculum engraves within its four-step music performance framework in the context of McClelland's motivators.

Index Terms—curriculum development, inquiry-based learning, McClelland's motivation, music education, project-based pedagogy, self-regulated learning

I. INTRODUCTION

The need for a dynamic music curriculum in schools is evident, as seen in an ongoing necessity to foster and promote students' creativity. Creative disciplines that emphasize imagination and interpretation provide K-12 learners with opportunities to find and discover interests within electives, inspire through artistic inclinations, and develop talents and expertise not exposed in school-required core courses. Whether increasing convergent or divergent thinking capacities, strengthening self-esteem, enhancing critical analysis skills, or developing interdisciplinary learning, music education is a necessary component of an all-inclusive instruction that – with shifting contemporary societal trends – evolves through novel pedagogical realms [1]. Educators expand the learning offered in music classes through diversifying the curriculum, as seen in distinctions between performative courses, such as ensemble and choir, and academic fields of study, such as music theory and history. It is important to note that recent scholarly research illustrated increased educational benefits through the applied coursework, which carries a practical purpose [2]. Such a practical result exists within project-based and inquiry-based frameworks formed by combining academic and performative music education components.

II. RESEARCH PURPOSE

This paper proposes a holistic approach that generates self-regulated learning practice for students to follow in a music performance class. The methods outlined in this paper focus on artistic and academic perspectives of music while concentrating on expanding motivation through project-based and inquiry-based learnings. This research's curricular foundation is student-led rather than instructor-led and bases upon McClelland's motivational philosophies that – in the wake of creating the urgency for achievement, affiliation, and power – allows students to guide their own learning experiences and produce unique creative outputs [3].

Concert recital is a regular occurrence in schools that allow K-12 institutions to showcase student results from the music classroom with a performative output. The managerial processes behind assembling recitals depend on the learning systems that schools establish for students. In a pedagogical scenario that implements a combination of inquiry and project-based learnings, the concert performance is the product of three preceding components – the selection of music, arranging of music, and learning of music, all of which occur with the guidance of music instructors and administrators within the school system. Although predominantly student-led, teaching and administrative staff is in charge of the performance process and its preparation, causing the curriculum to be teacher-led. This article outlines the use of McClelland's theory in adapting student-centered and student-led educational models to delegate the music selection, arranging, learning, and performing to students, which expands the dimensions of knowledge offered in performance classes. Furthermore, this research experiments with four supplementary administrative structures in the organizational nature of the music curriculum.

First, the school's ensemble incorporates student-chosen instruments rather than traditional instrumentation found in orchestras and jazz bands. Second, the program includes an arranged student-chosen (rather than director-

led) repertoire, highlighting student-centered leadership in selecting the music. Third, there are no limits on students joining the ensemble, thus allowing everyone at all levels of expertise to collaborate on the instrument of their choice. Fourth, the completion and contribution are the mere influential factors that define a student's grade point average due to the impracticality of standardization caused by allowing students of all levels to join the ensemble.

III. ACTIVATING PROJECT-BASED AND INQUIRY-BASED LEARNING THEORIES

The four before-mentioned elements' essential purpose is to present the students with an opportunity to achieve self-regulated learning. The two styles through which students can adapt to self-regulated studying habits are project-based and inquiry-based modes of pedagogy; both demonstrate a plethora of results that align with one's ability to take accountable control of one's education. Both project-based and inquiry-based methodologies allow the students to learn by focusing on tasks specifically designed to cater to one's interests.

21st-century learning styles promote novel pedagogical environments in which students can get involved. Schools need to continually revamp programs of study to meet students' current learning needs, and one of such methods – a practical approach aligned with getting acquainted through real-world experiences – to produce instruction occurs through project-based learning. Project-based learning fosters motivation through investigation, causing students to immerse themselves in unknown learning situations [4]. Such an instructional method likewise promotes curiosity and presents students with opportunities to connect with out-of-school social procedures, thus integrating academic learning with real-life experiences [5]. Responsibility, decision-making, and accountability for one's work define the benefits of project-based-learning philosophy, essential in allowing students to realize that a teacher is merely an organizer and facilitator in the classroom. Likewise, project-based learning creates a supportive and teacher-directed educational environment, engaging students in various practical scenarios [6]. Methods to apply project-based learning within the music classroom include arranging music, scoring videos, managing recitals, and performing at music concerts. Students' responsibilities to complete such tasks go beyond what textbooks and exams offer, thus expanding educational dispersion among many students in one or more music classrooms. Inspiring students to strive for authentic education offered through project-based learning allows instructors to derive innovative content through which students showcase their artistry. Such a learning philosophy focuses on non-standardized content that teachers need to assess in the music courses, both performative and academic. Kaschub and Smith define the need to incorporate philosophical and sociological perspectives when uncovering the 21st-century needs for students in the modern classroom; the three primary ways to transform and influence students' musical experiences are creating, performing, and

listening to music [7]. Project-based learning allows instructors to define all three components via a complex task that students collaboratively strive to complete.

Inquiry-based learning allows the instructor to implement a task through a series of questions, whereas the students are faced with the decision-making processes in resolving the issues at hand, thus leading to the students being fascinated in researching previous experiences and understanding current complexities and how others resolved such scenarios in the past [8]. In music performance curriculum, inquiry-based pedagogy closely connects with problem-based learning, mainly due to the need of instructors to have instrumental expertise; for example, an instructor may choose an approach of teaching a piece of music by defining it as a problem that needs to be solved, while intervening into the process through inquiry-based manner [9]. Additionally, as per Sindberg, course instructors showcase strong teaching capabilities by reserving the notions of a problem, its needs, and its purpose in the classroom, allowing students to understand the significance of what they are learning and how the new knowledge benefits the resolution of the issue [10]. The need to select, arrange, learn, and perform the music connects to Sindberg's *problem-need-purpose* philosophy under the inquiry-based framework. Inquiry-based learning integrates itself within motivation since students have more success in working with meaningful content. Producing questions based on evolved problems allow students to identify multiple purposes before completing the assigned tasks [11]. Inquiry-based learning in a music performance classroom requires collaboration and communication and effectively increases one's productivity. Under such a methodology, students, aside from identifying the inquiries, efficaciously proceed to solve them [12].

IV. THE PATHWAY TOWARDS SELF-REGULATED LEARNING: COMBINING PROJECT-BASED AND INQUIRY-BASED PEDAGOGIES

While both theories are beneficial, neither independently matches the student-centered needs while applied. Students are more likely to collaborate on a project through inquiry and communicate their ideas through questioning the appropriate set of decisions to undertake when attempting to resolve a complication within a given project [13]. The purpose behind changes in the music performance curriculum structure is to align knowledge to be self-regulated and present students with possibilities to find unique interests and identify strengths and weaknesses in their education. As per the third organizational change, there is no limit to who joins the instrumental ensemble; such an alteration allows students of all levels to participate in music performance, creating several didactic targets. Self-regulated practices teach the student how to control one's learning, which changes depending on one's academic and performative goals and differs from student to student. Therefore, it is necessary to integrate project-based and inquiry-based methods to enable students' adaptation to a 21st-century education.

Such a process emphasizes personalized learning, allowing instructors to bring the curriculum to students rather than bring students to the curriculum. Personalized pedagogy is learner-centered and supports the notion of curriculum personalization through assigning tasks based on students' interests [14]. Therefore, personalized learning – on the path to self-regulated learning – serves as the transition to combine project-based and inquiry-based methodologies while adapting to the organicist nature of student-centered education, thus allowing instructors to align the curriculum with the student-centered needs.
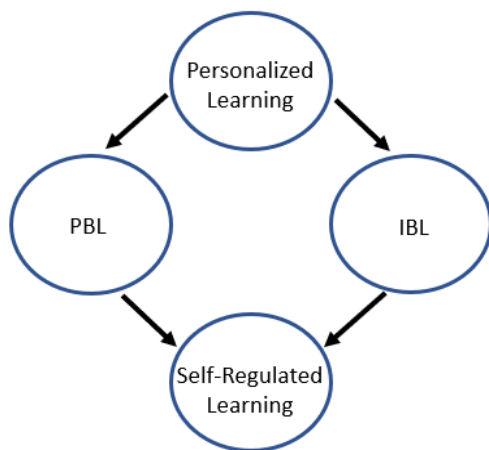

Figure 1. Path to self-regulated learning through project-based (PBL) and inquiry-based (IBL) learnings.

Therefore, the changes under the revised organizational structure offer a student-led curriculum, where students – on the path to self-regulated learning – are in charge of producing the concert recital through identifying the processes of selecting, arranging, and learning the music via project-based and inquiry-based methods, as outlined in Fig. 1. The instructor shall personalize the academic and artistic content through management and supervision. In such a setting, a significant portion of the learning process incises itself inside the notion of student motivation, explained by McClelland's three ideas of the need for achievement, affiliation, and power. Accordingly, the path to self-regulated learning through personalized instructor-led support allows students to have complete control of the revised curriculum, how it is used, applied, and practiced at all stages of the course.

V. INTEGRATING MCCLELLAND'S ACHIEVEMENT, AFFILIATION, AND POWER COMPONENTS

A student's potential to appreciate music is a life-long skill that students learn to possess while spending time in K-12 classrooms. Instructors shall understand what motivates students to pursue music. Music is not a required subject in most school systems and is merely a passion that fascinates young learners. Therefore, there is an increased need for teachers to ensure that students enjoy their music-making in schools. McClelland illustrates that motivation occurs through one's desire for achievement, affiliation, and power. The theory underlines a person's need to obtain these three components by completing particular tasks [15]. A teacher's understanding of how the three components translate into students' working efficiency vastly benefits the learning atmosphere and strives for self-regulated learning behaviors. There are multiple areas of analysis in motivational research, but the elements of one's 'need' and 'want' define the broad range of satisfaction that students receive from their work; the efficient applicability of McClelland's theories allows educators to transform the necessity to do a surplus of assignments into students wanting to do the work due to one's necessity for achievement, affiliation, and power [16]. Consequently, a teacher's ability to enforce and recurrently reinforce motivation will positively influence how students learn, at which pace, and provide encouragement for final solid results. Motivation – rather than an activity or pedagogical process – is a study of why students act in particular ways. McClelland's theory of needs helps instructors trace the learning steps and understand each student's educational purposes with a pedagogical input.

The need for achievement, affiliation, and power generates a rising learning curve in the classroom, connecting students to self-led curriculum content. For example, in pre-concert stages, the selection of music is often instructor-led, and those in music administration typically decide which literature is to be showcased on the stage. Those in charge of choosing the music literature often have strong expertise in knowing which repertoire will pedagogically benefit the students. Additionally, the administration in charge of directing performances is aware of students' artistic capabilities in the orchestra or ensemble. However, there is little influence in terms of affiliation and power on behalf of the students. Instructors do not affiliate students with choosing the performing repertoire, and neither do the students possess any impact on what happens in the proceeding steps. Delegating the task of choosing music to students produces a stronger motivation due to students obtaining more power and affiliation over the initial step of the concert preparation. Students are likewise aware that such power and affiliation come with responsibility, providing a further boost to successfully tackling the concert preparation process and upcoming tasks.

Academic emphasis on music-making is just as prominent as the artistic output, which is why fields such as music theory serve as a healthy supplement to all types of music performance programs. Director-chosen music signifies that very little academic intervention occurs on behalf of music theory and analysis. Schools usually purchase sheet music or, on some occasions, acquire an arrangement specifically designed for the school's performance group. While a complex and arduous activity, arranging music is one of the most vital elements of project-based and inquiry-based teaching philosophies, engulfing various standards from the music theory curriculum. Arranging music for a practical purpose is an ideal learning environment for students involved in music analysis-related courses. Therefore, students in music

production, composition, arranging, theory, and songwriting classes should hold a role in the concert-making process. Instructors should merely facilitate and supervise the procedure of music arranging, and it ought to be up to the students to take the selected repertoire and adapt it to the school's ensemble or orchestra. In the retrospective of arranging the music, the final product provides the sense of achievement, the abilities to be part of the process defines the notion of affiliation, and having the control over what performers learn for the subsequent steps brings the sense of power – all requisite elements of motivation as per McClelland's ideologies.

Figure 2. An excerpt from an arrangement of Tchaikovsky's *Nutcracker: Pas de Deux* for an instrumental ensemble.

The instructional methods in the proposed pedagogical scenario allow students of all levels to perform on instruments of their choice, creating an untraditional ensemble with derivations in instrumental families and the number of players in each instrumental group. The first organizational component, the student-led process of choosing the music, calls for arrangements to allow students to adapt music for those performing in the school's ensemble. Abilities to include innovative instruments is an additional power component that initiates motivation for holistic concert performance development. Fig. 2 shows some of the untraditional deviances from what is perceived as the standard in music performance, as seen from sheet music arranged for the North America International School's instrumental ensemble.

For instance, a student who plays bass guitar may never experience performing Tchaikovsky's *Pas de Deux* from the *Nutcracker* ballet unless the selection and

arranging processes are student-led. Tchaikovsky's ballet initially scored for a full orchestra is arranged for saxophones, horns, xylophones, timpani, triangles, cymbal, piano, keytar, guitars, bass guitars, violins, and erhus [17]. A similar situation exists for a student that plays an erhu (a traditional Chinese instrument) or a keytar (an electronic keyboard instrument.) This allows instructors to teach classical, popular, and traditional music for an instrumental ensemble in a performative setting without the need of having all instruments and students of appropriate playing levels [18]. All instrumental peculiarities are student-driven due to students' curiosity, creativity, and appeal in performing these instruments. It is in the best interests of music instructors to promote such fascinations rather than submerge them regardless of contemporary performance practice traditions.

Defining a student-led curriculum through choosing and arranging music leads the concert-development stage to the final two frames – learning and performing the music. It is significant to note that the amalgamation of all work is to be completed under close guidance and leadership of the faculty, who merely administer and lead students towards solving the tasks and mini-projects through setting goals and assisting students to reach success through the inquiry-based methodology. Such a teaching policy emphasizes the need for structure and organization. While curriculum standardization occurs, it does not necessarily need to follow a previously-established standardized learning contour; in the concoction of academic and performative courses, students at all levels of education, including college preparatory, advanced placement, honors, and others, can participate in all stages of concert developments. Concurrently, curriculum innovatory practices are necessary to expand capability improvements at all levels of music. For instance, instructors can make learning and performing music more student-centered and student-led by incorporating student conductors. Music directors and teachers often lead the school's ensemble and orchestra rehearsals and performances with an occasional delegation of such duties to university students or graduates. Presenting high school students with music conducting opportunities augments the power and achievement categories of McClelland's scale and equips students with more unique responsibilities. Such exclusive student-led opportunities need expansion in the curriculum, focusing on the content-specific study of ensemble conducting, fostering artistic leadership, a sense of music comprehension, interpretation, and collaborative control in musicianship.

In its application to education, McClelland's human motivation theory allows students to be innovative and adds nonconformist learning resources otherwise unavailable in traditional music pedagogy. The three human motivators drive students to the self-regulated learning path by providing them with more decision-making and responsibility. Instructional delegation of tasks to students produces an authentic and student-centered curriculum, allowing students to expand

artistically through achievement, affiliation, and power. In music, motivation leads to efficient work ethics and more robust artistic results, allowing students to self-adapt to complex learning environments through a specific set of delegated activities. Fig. 3 showcases the four stages of concert preparation under a traditional learning environment and its comparison to the revised structure with enhanced student-centered foundations, accentuating an increase in achievement, affiliation, and power in music education.
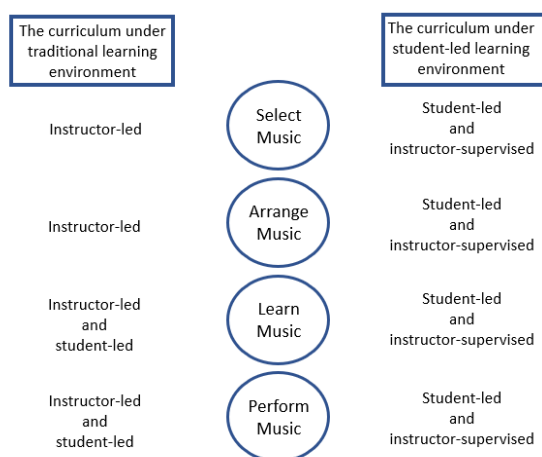

Figure 3. A comparison between the traditional and revised performance curriculum structures with a student-led contribution over instructor-led.

VI. Expanding Music Curriculum

The network of music courses offered in K-12 institutions is vast and covers various essential goals and purposes of the performing arts curriculum. Academic and performative courses have unique purposes in helping students achieve objectives necessary for their all-inclusive education, as seen by amalgamating performance-based and analysis-centric coursework. Previously-established programs, including Common Core, College Preparatory, Honors, Advanced Placement, A-Level, and International Baccalaureate, are beneficial when teaching 21st-century skills to students through music. Common Core pedagogical principles, for instance, pay close attention to life and career skills, which are particularly necessary for modern education when stressing "deep understanding" of content matter rather than mere "pure knowledge" [19]. While these programs do not specifically prepare students with a final goal of running a concert recital, the creative output that students produce presents opportunities for instructors to use such content for project-based and inquiry-based purposes. For example, the tenth chapter in Scoggin's *Barron's AP Music Theory* textbook offers insight into melodic composition with a focus on form and structure, and the fourteenth chapter defines the elements of harmonic composition, with its analytical insight in phrasal construction, texture, and instrumentation located in the twentieth chapter [20]. To implement these course objectives into a practical learning environment, an instructor can prolong the analytical topics of music composition by asking students to get involved in music arrangement, which expands the AP Music Theory course instruction's interdisciplinary grounds. As per Beavers and Davis, high school AP Music Theory instructors spend approximately 11% of total class time during the academic year on music composition in the context of written theory activities [21]. Either supplementing these with music arrangement exercises or aligning composition with arrangement activities will add a purposeful element into the AP curriculum that will likewise allow students to collaborate in an interdisciplinary setting. The use of software (such as Finale, Sibelius, or MuseScore,) to arrange and revise ensemble music allows music programs to create a comprehensive approach to teaching applied music and allows schools to mix technology with artistic disciplines – yet another vital component of 21st-century education in the context of digital literacies [22].

While content-specific learning presents many educational opportunities, it is the need for a creative drive that generates motivation. For instance, there are multiple benefits of students enrolling in AP Music Theory course. Aside from the general study of theory, analytical techniques, and how music analysis works, the completion of the course often leads to improved success rates in one's academic output, allowing students to prepare for the AP Music Theory exam, obtain college credits, and improve college applications when seeking admissions into universities [23]. However, achieving a strong record on the final exam and obtaining college credits limits the motivational aptitude to expand on future studies' learned content. Therefore, allowing students to take on unfamiliar course-related tasks by creating supplementary cases for enhancing achievement, affiliation, and power offsets motivational limits and opens another educational flora in the world of the cross-disciplinary curriculum. The case defined in this research is taken from the curriculum at North America International School in Shanghai, China. Based on student-centered learning needs, the applications of McClelland's theories allow the school's music program to expand the curriculum for the following course: Research Methods in Music, Honors Music History, AP Music Theory, Instrumental Ensemble, Choir, and Fundamentals of Conducting.

The process of repertoire selection initiates the preparatory concert stage and is delegated to students in Research Methods in Music and Honors Music History courses. Through surveys, discussions, and collaborations, students are in charge of finalizing the repertoire, which those in Instrumental Ensemble and Choir want to perform. While extensive, not all musical works make the final repertoire list due to time shortage in the concert preparation stages. The final step is for students to create a list of instruments in the school's ensemble and generalize performance levels of those that play in the ensemble.

The next component is arranging the selected music, which is delegated to students in AP Music Theory and

Music Arrangement courses, and a few select advanced high school students currently taking theory-related and composition-centric online university-level courses. Under the school faculty's supervision, students hold the power to arrange and adapt all performed works for the school's ensemble based on each player's choice of instrument and performance expertise. While this activity is merely supplemental to the AP Music Theory course, Music Arrangement is a class specifically designed for students to undertake this task. Students are likewise able to enroll in both AP Music Theory and Music Arrangement courses. Close collaborations with students in Instrumental Ensemble and Choir courses are necessary to go over the music. The instructor's intervention is merely recommended to assist with the complexities rather than change the arrangement process's outcome.

Students in Instrumental Ensemble and Choir courses proceed to learn the selected and arranged music. The decisive components of this stage include the promotion and incorporation of innovative artistic ideas. As mentioned previously, students that play electronic and traditional instruments likewise enjoy collaborative performances, which is why the arranging process is entirely student-led. Specific performative structures need to be in place to ensure opportunities for all students to perform in the ensemble. For instance, students who do not have any performance experience and do not play an instrument may still participate in the performance by playing instruments, such as xylophones and triangles. These instruments will allow new students to learn music fundamentals, understand collaborative performance, and appreciate the nature of music rehearsals, all in the context of a performative environment. Such a curricular decision likewise allows students to learn rudiments of music in a performance class rather than an academic course [24]. (Certain instruments that need additional amplification benefit from the assistance of microphones assembled throughout the performance stage.)

Another novel curricular innovation in this process is the employment of student conductors. The duty that is often director-led is fascinating to students due to the nature of musical leadership. In the retrospective of *learning the music* and *performing the music*, conducting is the most notable influencer of achievement, power, and affiliation. While not all students are ready to conduct instrumental ensembles for an entire concert, the director may choose to delegate one to three pieces to each student conductor. Previous performance experience, as well as successful completion of theory and ear training courses, are recommended. A class designed specifically to teach the basics of conducting is vital for successful completion and academic fulfillment on behalf of the students involved with conducting.

The effective student-led curriculum will result in a memorable final component when students showcase their live performance results. Depending on the music program's size at a school, students from all music courses can benefit from such a learning environment. Delegated student-centric work with direct supervision

from the faculty and administration in the program will shift the balance of control and influence to students through achievement, affiliation, and power, allowing those learning to fully regulate the outcome of their creativity in a real-world setting. Fig. 4 reveals the select content-specific musical subjects which generate motivation and allow students to produce a self-directed curriculum through project-based and inquiry-based pedagogies with a focus on self-regulated learning.
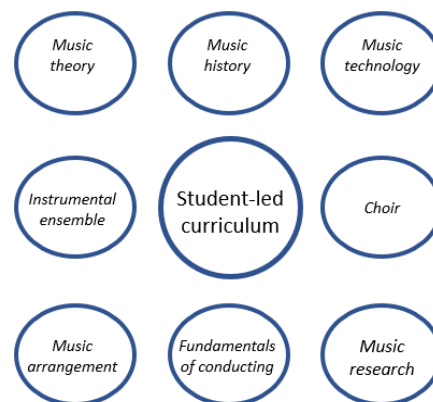
Figure 4.   Content-specific subjects in music in the student-led curriculum.

VII.   DISCUSSION: CURRICULUM INITIALIZATIONS

The notion of curriculum implies an appropriate alignment of coursework and course content to ensure students' smooth learning processes, yet curriculum likewise develops, defines, and solves pedagogical complexities that arise from applied learning [25]. In a world of music performance, pragmatic learning occurs beyond the concert stage. Indeed, performance is merely the outcome. The public showcase of the learned music is the result of music selection, arrangement, and rehearsals. Therefore, the pedagogical complexities that arise as the result of all stages that precede the final performance engulf the vast majority of the learning. As seen throughout this paper, academic curricular innovations are necessary to make the performative music component possible. Each student is unique with individual personality, interests, and learning styles. Therefore, each student has a different view of what knowledge is. Student-centered instruction with an individualized pedagogical plan of action is beneficial for students when learning while discovering talents and passions. Five main curriculum organization areas define why the project of this capacity and complexity is beneficial.

First, McClelland's theories allow instructors to focus on the curriculum that would fit students' learning needs rather than teach students to fit the curriculum. The purpose of the curriculum is to present students with learning in an inspiring and motivational way. Students learn best when such learning content is used in real-world scenarios. Students are motivated to solve various tasks and finish diverse activities to find the meaning behind their instructional methods. The content taught in music performance courses under a traditional

methodology provides access only to learn and perform. On the contrary, there is plenty of hidden curriculum found in selecting and arranging processes and additional learning opportunities when students are placed as orchestra and ensemble conductors. McClelland's emphasis on power, affiliation, and achievement can be realized by involving the students in the entire concert production process rather than the final two stages. Likewise, accentuating power, affiliation, and achievement allows students to use critical thinking and problem-solving skills to uncover how to turn the curriculum's content into practical knowledge.

Second, McClelland's theories and their connection with the student-led curriculum described in this article allow instructors to create educational structures that produce students' opportunities to expand on new curriculum originalities. It is in the teacher's best interests to perceive curriculum as philosophy through which we guide students towards learning via experience and motivation – a mindset that will allow 21st-century educators to diversify how they instruct in the classroom. Guiding students in such a manner is ideal when working with a program of fifty or more different-minded learners. For example, as shown in Table 1, instrumental hierarchy allows students of all levels to realize their potential. Regardless of playing ability and years of experience, every student has an opportunity to create music collaboratively. The minimum level of expertise necessary to perform in the ensemble is ranked based on the necessity to be familiar with the notation, chords, rhythms, and the inevitability of musical independence during rehearsals and performances.

TABLE I. A SAMPLE INSTRUMENTAL HIERARCHY IN THE STUDENT-LED ENSEMBLE

Instrument name	Role in the ensemble	A minimum level of expertise
Saxophone	melody	intermediate to advanced
Trumpet	melody	intermediate to advanced
Clarinet	melody	intermediate to advanced
Flute	melody	intermediate to advanced
Keytar	melody	intermediate to advanced
Piano	melody	intermediate to advanced
Violin	melody	intermediate to advanced
Erhu	melody	intermediate to advanced
Guzheng	melody and accompaniment	intermediate to advanced
Guitar	accompaniment	beginner to intermediate
Bass guitar	melody and accompaniment	beginner to intermediate
Xylophone	accompaniment and rhythm	beginner
Timpani	rhythm	beginner
Triangle	rhythm	beginner
Cymbals	rhythm	beginner

Third, McClelland's theories allow instructors to identify achievement gaps and issues with educational structures established for curricular implementations. For

instance, arranging instrumental music might be an unfamiliar practice for music teachers, let alone teaching and leading students to arrange. Depending on each teacher's musical training and experience with music theory and composition, teachers may need additional professional development in instructing how to arrange. Another complexity may arise with instrumentation. Those in charge of the music program may have difficulties with sitting order for instrumentalists, particularly with those student-chosen instruments that are quiet. For instance, guzheng is a traditional Chinese instrument prevalent among Chinese students, and many at NAIS want to play this instrument in the ensemble setting. The issue at hand is that the guzheng is too large to be placed at the front, especially with multiple students desiring to play these instruments. It also requires further amplification. Therefore, supplementary planning is required when placing instruments on the stage. A similar scenario occurs with other standard instruments, particularly for students that want to perform but cannot play any instruments. Accordingly, there was a need for two rows of xylophones to offset such an issue at the NAIS instrumental ensemble.

Fourth, through creating a sequential organization to student-led curriculum, McClelland's theories allow instructors to identify what each student finds compelling. Teachers and administrators can then implement this information to recognize the precise details behind the enhanced motivation that drives students to increase their artistic productivity. Whether it is the affiliation to be part of the group that chooses the repertoire, the power of leading the ensemble during rehearsal and concerts, or the achievement gained from serving as an arranger, the vast number of possibilities how students can get involved in music produces data-based evidence of what students find interesting in their learning process. Further curricular revisions can then be implemented. For instance, students that complete the Music Arrangement and AP Music Theory courses and participate in music arrangement projects may want to enhance their skills in this subject and choose to enroll in higher-level for-credit university courses. Students may likewise find extramural arrangement projects and activities in which they can participate. Educators know the essentials of the curriculum and how it benefits the learners. However, only students know the curricular elements that generate eagerness and motivation for further education, while educators cultivate such elements through affiliation, achievement, and power.

Fifth, the use of McClelland's theories invites for the elimination of curriculum standardization. There is no unique approach to instruct music when working with an artistic-centric curriculum, and even the most standardized programs evolve through time based on student needs. Some courses, such as AP Music Theory, have an outlined procedure that instructors follow to teach concepts and reach objectives as students prepare for the AP exam. Some courses, such as those that involve the learning of history and research, have standardized practices that result in learned knowledge.

Curriculum standardization does not exist in performance courses. The curriculum should not be standardized for performance courses and should prevail based on students' artistic proclivities. Students' musical tastes in performance classes will decide the type of music selected for performances. The selected music will influence the type of arrangements that are being produced, and the arrangements will impact what is being learned and performed. This process turns into a unique cycle, depending on the students involved in this project. Standardizing curricular practices and establishing a structure through which students follow to achieve each task is vital to students' motivation, yet standardizing the curriculum becomes detrimental since no curricular processes will be alike. In this case, the lack of standardization results in students' innovatory practices and tactics – a vital component to a student-led curriculum that drives extemporized change. While not standardized, the curriculum in place enables instructors to establish and plan experiences and novel pedagogical opportunities and aligns well with the improvisatory theory that pushes for originality over structure [26]. "Identifying and understanding teachers' goals and beliefs is critical to creating an evaluative analysis of reform efforts in education" [27]. Nevertheless, this ideology relates to students as well, since it is the students who can take the role of instructors and enable themselves onto the path of self-regulated learning by promoting affiliation, achievement, and power on behalf of the teachers.

VIII. CONCLUSION

The music program at North America International School in Shanghai, China, has vastly expanded over the past five semesters due to a student-led and student-centered evolving curriculum with a particular focus on project-based and inquiry-based learnings. The past two-and-a-half academic years combined for twelve concerts with an appearance of NAIS instrumental ensemble and choir. Each concert's repertoire contains an average of four to six choral works, five to eight works for an instrumental ensemble, and two works that involve collaboration among choir and ensemble. Two further observations can be traced via this practice. First, there is an increased interest in general music among all students. Learning to play or continuing performing on an instrument of one's choice is of much fascination to students due to collaborative performing opportunities. Second, students come up with highly inventive approaches to alter the curriculum. The use of bass guitar, keytar, or guzheng in an ensemble setting is an unusual practice not seen in many music programs. Third, a student-led curriculum leads to instructors having to expand learning opportunities in unknown directions. Courses in music arranging and conducting are not typically seen in the K-12 curriculum, yet students find much interest and fascination in learning these skills. Furthermore, the insight into real-world professions also motivates students to produce an increased creative output.

Future research directions can implement a similar innovative process to produce educational access in other academic areas, including a broader performing arts curriculum focusing on interdisciplinary connections among music, drama, and dance. Furthermore, the proposed application can link performing arts and a more comprehensive curriculum range, including humanities, language arts, and social sciences. Finally, e-learning and capacities to incorporate modern technologies can further expand student-led curriculum and its effectiveness in contemporary education.

There is a need to evolve in modern education. New practices, innovative activities, and novel methods to produce results motivate students to participate through affiliation, create through achievement, and lead through power. Students obtaining influence allows them to establish a set of goals and strive towards them through self-regulated learning. It is in the instructor's best interests to establish objectives through real-life situations rather than mere classroom activities [28]. The use of McClelland's theories to delegate instructor-led work and transforming it to be student-centered allows students to become the center of attention when working on a large-scale project of preparing for a music concert. It is through the student-led curriculum that instructors can reconceptualize music education and achieve self-regulated learning by combining project-based and inquiry-based pedagogies in an interdisciplinary perspective of academic and performative music courses.

CONFLICT OF INTEREST

There was no conflict of interest carried by the submitted work. The author declares no conflict of interest.

AUTHOR CONTRIBUTIONS

Nikita Mamedov conducted the research, taught all classes outlined in this study, analyzed the data, and wrote the paper.

REFERENCES

[1] S. Hallam, *The Power of Music*, London, UK: International Music Education Research Centre (iMerc) Press, 2005, pp. 67-68.

[2] D. J. Flinders (ed.) and S. J. Thornton (ed.), *The Curriculum Studies Reader*, 5th ed. New York, NY: Routledge, 2017, pp. 1-476.

[3] P. J. Ortmeier and Edwin Meese, *Leadership, Ethics, and Policing: Challenges for the 21st Century*, 2nd ed. Upper Saddle River, NJ: Pearson Education, 2009, pp. 1-376.

[4] P. C. Blumenfeld, E. Soloway, R. W. Marx, J. S. Krajcik, M. Guzdial, and A. Palincsar, "Motivating project-based learning: Sustaining the doing, supporting the learning," *Educational Psychologist*, vol. 26, no. 3, pp. 369-398, November 1991.

[5] E. Tobias, M. Campbell, and P. Greco, "Bringing curriculum to life: Enacting project-based learning in music programs," *Music Educators Journal*, vol. 102, no. 2, pp. 39-47, May 2001.

[6] K. Sormunen, K. Juuti, and J. Lavonen, "Maker-Centered project-based learning in inclusive classes: supporting students' active participation with teacher-directed reflective discussions," *International Journal of Science and Mathematics Education*, vol. 18, no. 3, pp. 691-712, June 2020.

[7] M. Kaschub and J. Smith, *Promising Practices in 21st Century Music Teacher Education*, Oxford, UK: Oxford University Press, 2014, pp. 1-260.

[8] B. A. Younker and J. Bracken, "Inquiry-Based learning through birdsong: An interdisciplinary project-based experience," *Journal of Music Teacher Education*, vol. 24, no. 3, pp. 37-52, June 2015.

[9] J. A. Blackwell and N. E. Roseth, "Problem-Based learning in a woodwind methods course: An action research study," *Journal of Music Teacher Education*, vol. 28, no. 1, pp. 55-69, October 2018.

[10] L. K. Sindberg, "Learning how to be a research-minded teacher: Four instrumental music education students investigate good music teaching through case study methodology," *Journal of Music Teacher Education*, vol. 25, no. 2, pp. 50-65, February 2016.

[11] S. J. Scott, "Exploring an inquiry-based stance for planning and instruction in general music education," *General Music Today*, vol. 21, no. 3, pp. 13-17, 2008.

[12] S. Scott, "Integrating inquiry-based (constructivist) music education with kodály-inspired learning," *Kodaly Envoy*, vol. 35, no. 1, pp. 4-9, Fall 2008.

[13] S. Bell, "Project-Based learning for the 21st century: Skills for the Future," *The Clearing House: A Journal of Educational Strategies, Issues and Ideas*, vol. 83, no. 2, pp. 39-43, July 2010.

[14] J. DeMink-Carthew and M. W. Olofson, "Hands-Joined learning as a framework for personalizing project-based learning in a middle grades classroom: An exploratory study," *Research in Middle Level Education*, vol. 43, no. 2, pp. 1-18, January 2020.

[15] R. Rybnicek, S. Bergner, and A. Gutschelhofer, "How individual needs influence motivation effects: A neuroscientific study on McClelland's need theory," *Review of Managerial Science*, vol. 13, no. 2, pp. 443-482, April 2019.

[16] J. Schüler, N. Baumann, A. Chasiotis, M. Bender, and I. Baum, "Implicit motives and basic psychological needs," *Journal of Personality*, vol. 87, no. 1, pp. 37-55, February 2019.

[17] R. J. Wiley, *Tchaikovsky's Ballets: Swan Lake, Sleeping Beauty, Nutcracker*, Oxford, UK: Clarendon Press, 1991, pp. 1-456.

[18] N. Mamedov, "MuseScore and project-based E-Learning: An all-inclusive approach to teach music history, theory, performance, and technology through Bizet'S L'amour est un oiseau rebelle," *International Journal of Inspired Education, Science and Technology*, vol. 2, no. 2, pp. 13-18, August 2020.

[19] H. A. Alismail and P. McGuire, "21st century standards and curriculum: Current research and practice," *Journal of Education and Practice*, vol. 6, no. 6, pp. 150-155, January 2015.

[20] N. F. Scoggin, *Barron's AP Music Theory*, 3rd ed. Hauppauge, NY: Barron's Educational Series Inc., 2018, pp. 1-675.

[21] J. Beavers and S. Davis, "AP music theory and college: Coordinating the curriculum," *Journal of Music Theory Pedagogy*, vol. 34, no. 1, pp. 33-72, 2020.

[22] R. Dammers, "A case study of the creation of a technology-based music course," *Bulletin of the Council for Research in Music Education*, vol. 186, no. 1, pp. 55-65, 2010.

[23] N. Mamedov, "Introducing neo-riemannian theory in AP curriculum through liszt's liebestraum No. 3," *International Journal of Information and Education Technology*, vol. 9, no. 9, pp. 594-598, September 2019.

[24] J. Cai and N. Mamedov, "Facilitating learning through collaborative ensemble performance," *International Journal of Music Science, Technology and Art*, vol. 2, no. 1, pp. 26-32, April 2020.

[25] S. W. Su, "The various concepts of curriculum and the factors involved in curricula-making," *Journal of Language Teaching and Research*, vol. 3, no. 1, pp. 153-158, January 2012.

[26] C. Gustafsson and M. Lindahl, "Improvisation – An emergence theory perspective," *Culture and Organization*, vol. 23, no. 3, pp. 177-196, March 2017.

[27] D. L. Russell and A. Schneiderheinze, "Understanding innovation in education using activity theory," *Journal of Educational Technology & Society*, vol. 8, no. 1, pp. 38-53, January 2005.

[28] S. Volet and K. Kimmel, "Editorial introduction: Motivation and learning in multiple contexts," *European Journal of Psychology of Education*, vol. 27, no. 2, pp. 155-160, June 2012.

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