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Abstract

This is a case study research project that focuses on participants' collaborative effort to embody rhythm through a musical score, with emphasis on Mariachi music and its polyrhythmic qualities. Rudolf von Laban's Effort Theory and the phenomenology of perception allowed the researcher to facilitate a space for creativity and authenticity in intention through an investigation of dynamic and expressive movement. Improvisatory movement tasks allowed for an unpicking of conscious corporeal rhythm and habitual movement motifs influenced by states of being. This somatic embodied practice incorporates a phenomenological approach to improvisation while distilling the ethnographic view of the musical component. There is an understanding of movement, technique, and individual progressive musical ability throughout the project. This research is formulated to provide further information on the phenomenology of improvisation as a creative performative tool. To distil the information from studio-based research into performative research, a choreographed ensemble, duet, and solo were used as a tool for the organization of space and time during the performance. This information coincided with the understanding of Mariachi music and its history through the Mexican culture and the standardization of dance steps to various regional sounds. The research below argues the importance of difference and aesthetics in creating an alluring viewing experience to create an identity standardized and canonized to capitalize.

Keywords: dance, music, choreomusicology, embodiment, rhythm, Mexican, Mariachi music, jarabes, sones, ethnography, phenomenology.

Introduction

Two trumpets, violins, vihuela, guitar, and guitarrón form the distinct instrumentation of an urban Mariachi group, capturing the essence of Mexican musicality. This research delved into the profound relationship between music and dance within Mexican culture, seeking to explore how embodied rhythmic sound scores, particularly Mariachi music, influence a participant's musicality.

Mariachi music is a traditional Mexican folk style renowned for its lively melody and patriotic enthusiasm, serving as both the inspiration and canvas for this study (Jáuregui, 1990). This project aspires to understand the essence of improvisation as a studio-based creative practice, decolonizing while paying homage to México's rich cultural history.

Research Questions

How does a culturally rhythmic sound score of Mariachi music impact a participant's perception of musicality during in-studio practice and performance? The investigation centres on the exploration of musicality in dance, specifically examining how dancers perceive and express action-based rhythm through their bodies in response to music. The goal is to expand the phenomenological theory of rhythmic coherence in dance, offering practical implications for creativity and improvisation within idiosyncratic, dynamically rhythmic, and harmonious scores. The research embodies a Mexican cultural kinaesthetic, fostering body awareness in space.

Theoretical Framework

This study is rooted in phenomenology, exploring the perception of rhythmic sound scores through a kinaesthetic improvisatory approach (Husserl, 1913; Merleau-Ponty, 1945; Heidegger, 1969; Noë, 2004). Kinaesthetic awareness plays a pivotal role, enabling the identification of improvisational intention within cultural contexts. Phenomenology becomes a lens through which cultural perspective and bodily knowledge merge in the context of action in perception.

Structure of the Research

This research unfolds through structured chapters, each contributing to a deeper understanding of the interplay between music, dance, and culture. Chapter 1 introduces the

philosophical underpinnings of phenomenology and perception, connecting these ideas to movement, choreography, and cultural embodiment.

Chapter 2, "Theorizing the Methodologies," delves into the practical applications of perception through action. The researcher draws from enactive theory, affordances, and Rudolf von Laban's concepts, examining their relevance within the context of colonization.

Chapter 3 analyses the existence of rhythmic expression during improvisation, exploring the relationship between motion and sound through audio stimuli and the impact on corporeality. The research introduces Neural Resonance Theory as a tool to understand how participants' exploration of movement with musical intent affects the brain and body.

Chapter 4 introduces ethnographic perspectives on Mariachi music and its cultural significance, leading to a methodological discussion. This outlines the practical methodologies for embodied exploration, including learning original ballet folkloric footwork and rhythmic dynamic patterns extracted from Mariachi music scores.

Chapter 5 examines the practical transition from studio to stage, focusing on how contemporary dancers perceive and respond to culturally rhythmic sound scores like Mariachi music. It highlights the role of cultural embodiment and perspective in this transition.

Chapter 6 explores the performative aspect, detailing how the researcher choreographed the performative output and emphasizing the embodiment of auditory experiences in live performances.

This thesis explores the impact of culturally rhythmic sound scores, exemplified by Mariachi music, on the perception of musicality among contemporary dancers. Through an examination of embodied practices, this research aims to uncover the unique interplay between music, culture, and improvisational dance, shedding light on how dancers' individuality and artistic integrity are theorized within a performance context.

In summary, this research endeavours to contribute to the fields of dance, music, and cultural studies by investigating contemporary dancers' responses to culturally rhythmic sound scores. Through an exploration of embodied perspectives and performative research processes, the research aims to enrich pedagogical practices, preserve cultural heritage, and deepen the understanding of improvisational dance within diverse cultural contexts.

CHAPTER 1

Theorizing the Research

A. Phenomenology and Perception

To understand the existence of dance and music, an introduction to action and perception is necessary. The methodologies used for this research are theorized through Edmund Husserl's (1859-1938) theory of transcendental phenomenology, the concept of hermeneutic phenomenology from the perspective of Martin Heidegger (1889-1976), and the ideas of phenomenology of perception of Maurice Merleau-Ponty (1908-1961). In comparison, these philosophers examined the idea of "phenomena". The theory of how we experience consciousness, through the body and the world around us, and "... to describe the meaning of this experience- in both terms of <u>what</u> was experienced and <u>how</u> it was experienced" (Neubauer et al., 2019). The "world" within this context is seen as any extrinsic force developed outside of our body, like nature, the Earth, or the universe.

The research is interested in the experience of consciousness during improvisation and performance. Phenomenology is seen as "intentionality" within the experience. Through this understanding, improvisation and performance share an intentionality of moving, in this research, moving the body to music. During the improvisational sessions, the participants' movement used intentionality to physically perceive the dynamics, tone, pitch, volume, and tempo.

This research aims to see if cognizing perception can help in understanding phenomenology to further investigate a practice-based research study with dancers and musicians. Moreover, the research enquiry continues with a side-by-side view of the ideas of these three philosophers following the intentional aspects of improvisation through cultural perspectives and bodily experiences.

A1. Husserl's Transcendental Phenomenology

Edmund Husserl was a German philosopher and mathematician who was known as the "father of phenomenology" (Neubauer et al., 2019). In his work, particularly in *Ideas* I (Book One, 1913), Husserl aims to understand the "knowledge of essence". The essence is the fundamental properties of an entity or object. Husserl dives deeper into understanding *phenomenology*, as "a science of phenomena" (pp.37). Immanuel Kant (1724-1804), another philosopher who made significant contributions to epistemology, ethics, and aesthetics, described *phenomena* as the actual objects of sensuous experience and perception. The

theory of essence deals with finding <u>why</u> things are the way they are at their very core, without the embellishment or extrinsic forces.

Like psychology, phenomenology deals with consciousness. Husserl believed consciousness is a "stream of experience" (pp.113). In this context, experience is based on the intentionality of consciousness. He thought "experience is to be transcended to discover reality" (Neubauer et al., 2019). This focus on transcending is depicted by Husserl's' idea that consciousness is always conscious of something. This philosophy was thought to "contrast every point on natural attitude of experience and thought" (pp.39). The natural attitude was, that the idea of consciousness was based on natural sciences with a rationalist philosophy. The rationalist philosophy was based on understanding consciousness through appearances and things-as-they-look, visual perception. Instead, Husserl asserts that our conscious experiences or events are something we directly engage in and perform through, or embodiment. He presumes that a subject does not experience objects in the natural attitude but rather the subject experiences objective perspectives based on perspective variations of here and now. In other words, the world presents itself in a way to the subject, who then experiences through the objects how the way of the world is. He believed in an individualistic, first-person feature which was known as experimentalist thoughts.

To truly experience something, one must remove all previous cognitive expressions, thoughts, and perspectives related to that object, including scientific assumptions. Dance serves as an example. Let's consider a dancer's perspective on musical accompaniment during an improvisatory movement task. The 'natural attitude' or rationalist perspective focuses on the musical score's structure and consistency, filtering specific emotions. However, an 'experientialist' perspective allows the tone of the sound score to convey the emotion of the lived musical experience through description and interpretation by the individual.

So, to achieve this "new" and "pure" phenomenology of experiences, the thinker must strip all presumptions of the experience to find the essential qualities of the phenomena. This can also be compared to the stripping of information through somatic embodiment. Soma is known as *embodied conscious awareness* (Fraleigh, 2016, pp.xxi). Somatic practice emphasizes self-awareness and the relationship between oneself and external influences.

Certain exercises start by finding a natural breath rhythm while attuning to the heartbeat's pulse, as these rhythms are inherent in the body. In this research, participants intentionally reduced their movement to the qualitative elements of space, time, force, and weight. This approach can be further understood through Laban's explanation of the eight action elements. While this limited vocabulary restricted movement dynamics for some

participants, it guided others in identifying and expressing their movements. These reflective somatic practices will be explained further in the methodologies section.

An example where Husserl's ideas fall short in explaining the impact of music on a dancer's musicality is when a ballet dancer hears a classical soundtrack. Instantly, the dancer is transported to memories of their ballet classes, even if it has been years since they last danced. If an ex-ballerina hears a waltz from a different musical tradition, they associate it with performing an adagio across the floor and spontaneously creates movement in that style. This example highlights why Husserl's framework fails to account for how exposure to rhythmic music affects a dancer's musicality.

To understand this, participants must be aware of their habitual patterns and have a kinaesthetic understanding of their movement capabilities. While visually embodying a rhythm and filtering out other movements, dancers don't consciously think about specific dance styles, yet their technique influences their improvisational movements. A dancer's body holds their memories and personal history.

Improvising is a movement generation tool. Improvisation in dance can be seen as allowing impulsive moments of movement to happen without preconceived ideas or preparation (Nachmanovitch, 1990). This poses a problem to Husserl's transcendental phenomenology within improvising dance, which does not consider the dancer's training or habitual patterns that can arise from muscle memory or genealogy. Muscle memory is known as an unconscious movement caused by a repeated neurological pathway created between muscle and brain.

This idea of muscle memory is built through proprioception which is responsible for "the maintenance of balance control" and kinaesthesia responds to the memorization of repeated behavioural movement patterns (Tay, 2020). I will discuss furthermore the idea of proprioception and kinaesthesia through Heidegger's interpretive phenomenology.

During improvisation, dancers may become aware of the influence of gravity. Although gravity is a concept in physics, the dancer's body constantly interacts with it. They consciously or unconsciously consider how to move in relation to the forces of nature and their placement in space. This understanding of gravity's impact on their movement, including time and effort, can be an automatic process that occurs regardless of musical accompaniment. While attending to gravity can be a conscious choice, its effects are always present, whether the dancer acknowledges them in the moment or not. Therefore, a dancer cannot completely disregard scientific knowledge and solely rely on a pure phenomenological process during improvisation.

Improvisation involves spontaneous creative motion, but the intention and thought behind the movement allow for a deeper understanding of the dancer's body and their habitual patterns. Gravity plays a role in the corporeal relationship to rhythm, which will be explored further.

Another problem that does not coincide with Husserl's transcendental phenomenology is the understanding to the dancer that their intention to movement, in creation, becomes a preconceived notion. This conviction leads me to believe there is no "pure" phenomenological approach to improvisation. In improvisation, there is a focus on the invention. Improvisation is seen through the creative process and through the stages of discovery.

Whether it be a socio, cultural, or performative process there is an underlying force of consciousness to excrete a bodily motion either familiar or unfamiliar to the individual dancer's body. This theory perforates the idea of discarding all the dancer knows before to instil themselves within a "pure" improvisatory process that generates "new" movement. This idea is important for this research, as it places the phenomenological understanding of experiences within the improvisatory framework of movement creation.

A2. Heidegger's Hermeneutic Phenomenology

Another philosopher, Martin Heidegger, was a German philosopher whose ideals focused on understanding the "Being," or existence in the now. In his book *Being and Time* (1927), he develops his philosophical questioning of the sense of Being, or the fundamental structures of human existence. As well, as investigating our mode of being in the world. He formulates his understanding of phenomenology through what he calls "Hermeneutic Phenomenology."

Hermeneutics refers to the interpretation and understanding of Being through our lived experiences. In this project, the hermeneutic approach was engaging in a reflective analysis of improvisation through discussion, language, and in-studio experience.

While both philosophers share a basis in phenomenology, Husserl focuses on consciousness and intentional acts, while Heidegger emphasizes the interpretation of being and the significance of our historical and cultural contexts (Neubauer et al., 2019). Heidegger wanted to formulate the notion of understanding our psychological, social, and professional parochialism to live authentically for oneself. He proposed an existentialist philosophy through which he explains that one needs to live for oneself without the pressures and stereotypes placed upon us by society (Laverty, 2003). To do this, one needs

reminders and daily conscious awareness of what presupposes us and hinders one from living a life without worrying about what others think.

Our understanding of the world shapes our perspective of individual circumstances, but it is important to recognize that our ancestor's understanding was based on the afforded knowledge available to them in their historical context. Heidegger believed that one could not discount the "what" surrounding intentionality (pp.381). He believed that one could not separate the experiences of consciousness with the context of "how" they came to be. The objective of consciousness is entangled in the world as it is presented to us within the setting and background of the socio-cultural elements during that time. Heidegger emphasized the presence and mingling of nature of being and the world, highlighting our experiences and interpretations as inseparable from the socio-cultural extrinsic elements.

It is important that for this research there is an understanding of how humans interacted with the elements of dance and music throughout history. The ethnographic research behind Mexican music and dance throughout history gives us insight into the significance of movement and the role it played in beliefs and desires. An example would be the historical context of the Aztec's ritualistic practices.

Raul Flores Guerrero provides an insightful historical view of the Aztec community in a book titled "La Danza en México", translated as "The Dances in México" (1980). The Aztecs were a community of Mexican indigenous people from the 13th century (pp.7-8). With the belief that performing perfectly synchronized ritualistic dancing and singing would appease the higher powers, they danced, embodying gods and goddesses, in anticipation of having their wishes granted. Driven by the fear of infertility or crop failure there was motivation to dance with utmost precision and unity, as they believed this would please the higher powers and grant their wishes (pp.9). According to this reference, belief was a powerful tool used to enlighten a community driven by the forces of nature.

However, in the present world, dance has become a form of entertainment and is disconnected from its original spiritual and ritualistic purposes. The standardization of Mexican folkloric dance has minimized the depth of interpretation within the idea of spirituality and religious productivity (Hutchinson, 2003). What began as a genre of dance for joy and courtship changed over time. Ballet Folklorico was a product of canonizing a national identity from the colonizers who reduced it to a visual spectacle for the enjoyment of an audience.

This example illustrates the dynamic nature of cultural practices and how they evolve over a period. The idea of perfection is biased to aesthetic consumption and audience appeal rather than regard for the gods or goddesses. This affects the output of this

technique genre which forces us to reflect on the ways in which our understanding of the world shapes our interpretations and engagements with various aspects of life, including art, tradition, and spirituality.

To shed light on Heidegger's phenomenology from a different perspective, Kirsi Monni, a Finish professor of the arts, explores Heidegger's thinking in relation to aesthetic productivity in her paper called "Sense and Meaning in Dance" (2008). Monni examines the influence of aesthetics on contemporary dance and argues that Heidegger's notion of materiality in an ideal state provides a framework for understanding art. Heidegger perceives art as an authentic disclosure, an extension of our understanding of Being (Heidegger, 1991).

From my understanding, the approach to art, as seen through Heidegger's lens, is based on a multitude of ideals and materiality. Art serves as a window into the essence of what it means to live and comprehend "Being." In the context of dance improvisation, dancers develop their movement based on an understanding of the physicality of their bodies, embracing their inherent truths and capacities. These bodily truths manifest as habitual dynamical flow patterns, often observed through repetition or reoccurrence of a movement, also known as a motif.

The understanding of bodily truths and the affordance of movement through improvisation aligns with the ideas of Maurice Merleau-Ponty, another influential philosopher. During improvisation, the dancers tap into their bodily wisdom and engage with the immediate environment, enabling a deep and authentic expression of movement. By diving into the concepts of improvisation and embodied experience, this research can further explore how phenomenological approaches provide insights into the rich and multifaceted nature of artistic expression, particularly in dance.

A3. Merleau-Ponty's Phenomenology of Perception

Maurice Merleau-Ponty is a French phenomenologist, widely known for his existentialist ideas that align and differ from Husserl and Heidegger. He emphasises the embodied nature of human existence and the role of perception in creating our understanding of the world. Merleau-Ponty focuses on the lived body and the phenomenology of the senses, unlike Husserl, who initially emphasized a more detached and intentional analysis of consciousness. Merleau-Ponty and Heidegger agree with placing significance on historical and cultural contexts within shaping our understanding of being.

In "Phenomenology of Perception" (1945), Maurice Merleau-Ponty speaks of the intention behind behaviour, which is formulated by our experiences and embodied

consciousness. Embodied consciousness is also referred to as embodied cognition, emphasizing that the body and its interactions with the environment play a crucial role in cognition. Merleau-Ponty argues that the body and its orientation to space cannot be seen from an out-of-body experience, or separated, but is lived through our lived experiences and movement. The concept of motility, which refers to the spatiality of the body in action, is central to this perspective.

A notable example of how motility can be illustrated to perceive our experience through our environment is seen through tasks like answering a phone call. Imagine your phone is ringing. The initial reaction to a cell phone ringing is to grab the phone. Your arm reaches to dig in your pocket to find the phone. The urgency of answering bypasses conscious thought, as this action has become second nature through repetition. "Second nature" comes as a way of saying the task is innate, automatic, and an ingrained bodily action. Also, you reach into your pocket to find your phone without having to look down at where your pocket is because you know the length of your arm based on previous experiences.

Merleau-Ponty provides compelling case studies of individuals who have lost their limbs and now must undergo retraining their neural pathways to adjust to the absence of a limb, to amend for a significant perspective change and adaptation in their lives. Merleau-Ponty continues to emphasize the inseparable connection between the body, perception, and action (pp. 88). He does this by emphasizing the notion of the "phantom limb" and how some individuals who have lost their limbs will receive neural sensations and feelings where the limb used to be.

To further understand the concept of kinesphere and its relation to embodied perception, a personal perspective is added here. When I interact with the world around me and seek to gain perceptual knowledge of what is around me and utilize what is of use to me, I must go into the space and become aware of the kinesphere. Rudolf Von Laban's concept of kinesphere defines it as the space within as far as your limbs can reach without displacing your body (Laban, 1966). It is important to note that this idea will shift as soon as your body alters its weight balance.

Both Laban and Merleau-Ponty agree on the idea of body schema, which is the situational space around the body. Laban expands upon body schema through this notion of kinesphere. The body schema and kinesphere create this philosophical understanding of the body within spatial perception from the perspective of an interactive perceiver (pp.166).

For a dancer, whose body is constantly shifting weight, the kinesphere is continually being altered. During an improvisational task that focuses on the intention of interpreting

rhythm through the body, the dancer maintains a consistent awareness of their weight shifts and their limbs in accordance with their individual kinespheric capabilities. These kinespheric capabilities include the height to which their leg can reach or the range of rotation their head can achieve. The dancer would already have a sense of these personal goals and bodily truths before entering the studio. As the perceiver, the dancer becomes the descriptor of the experience, and the experience itself becomes the ingrained "second nature" during performance.

Maureen Connolly and Anna Lathrop constructed a dialogue of connections and parallels that they saw between these two philosophers in a paper called "Maurice Merleau-Ponty and Rudolf Laban: An Interactive Appropriation of Parallels and Resonances" (1997).

Laban and Merleau-Ponty share a common interest in how the world reveals itself through perceptible ontologies. Laban is interested in the form of movement, while Merleau-Ponty explores embodied action and perception. Both philosophers emphasize the importance of actively engaging with multiple perspectives or "profiles" to acknowledge the essence of objects or movements (pp.36).

Laban shares the idea that multiple perspectives or "profiles" aid in understanding the principalities of form and the meaning of objects. To see the object, there is an action of perceiving the object from multiple perspectives which allows for a comprehensive thought of what the object or movement can be.

Connolly and Lathrop gave an example of "profiles" through the perception of a table. When perceiving a table, you observe the table from a specific position in space and recognize the object as a table. You identify it as a table based on its characteristics such as legs and a flat surface. However, to have a complete judgement of the object being an actual table, you need to change your orientation by actively moving around it. This dynamic perception is now initiated by bodily action (pp.37).

Laban and Merleau-Ponty both understand the notion that perception is a dynamic and interactive process, influenced by bodily movement and active engagement with the objects presented to us, through our senses. It is worth mentioning the following philosopher, Alva Noë, who also explores the notion of action in perception. His ideas propose that perception is not solely based on passive processing but involves an active engagement with the environment.

CHAPTER 2

Theorizing the Methodologies: Perception through Action

What affects a dancer's intention of perception during improvisation?

While understanding the phenomenology of perception, this chapter explains the practical process of researching the perception of musicality through motility in dance improvisation. This exploration is rooted in the ideas presented by Alva Noë in his book, "Action in Perception." To identify perceptual qualities in music, the participants engaged with rhythm and harmony, drawing from Rudolf von Laban's approach, to develop a movement language. This methodology was employed to create the performative output of the dance.

The research adopts an embodiment approach, conceiving the body as an active participant in external ideas and actions. Corporeality is defined as the vessel of the body, and embodied corporeality refers to being present with mind and body through effort and integrity. In the context of dance and music, the body enacts motions to create sound or movement orchestration, embodying the duality of motion and sound discussed in the perception of action.

The participants in this research are influenced by societal paradigms of aesthetics and palpability. Aesthetics, in these circumstances, concerns the likeness of musicality within contemporary dance, encompassing an individual's choice of movement and stylized preferences in technical and non-technical experiences.

B. Noë's Action in Perception

Alva Noë, a professor of philosophy, cognitive scientist, and neuroscientist shares his theory and writes about the philosophers who influenced his eminent book on perception. Noë outlines in his book, "Action in Perception" (2004), his concept of phenomenology. He offers a unique perspective that challenges traditional notions of sight-based perception. Noë argues the importance of sensorimotor knowledge in producing perceptual content through an enactive approach to the world. This position falls in comparison to Merleau-Ponty's view of perceptual cognition.

Sensorimotor knowledge pertains to the experience of shape and "[this familiarity] depends on our implicit grasp of the way perspectival shape varies as we move in respect to an object" (pp.83). His approach entailed an active engagement with the environment through bodily actions. This concept was used to contextualize the exploration of this research and to create sensory stimulation within the dance improvisation sessions. The project theorizes the perception of movement and rhythm in the body of the dancers. These routines will be explained further in the methodologies section of this paper.

Furthermore, on Noë idea of perception, "[it] is input from the world to mind, action is output from mind to world, thought is the mediating process" (pp.3). This is to say that all perception is inherent in action and thought through with sensorimotor knowledge. His concept of the intrinsic process of extrinsic force develops from the critique of the sight-based paradigm.

Noë argues the instability of the paradigm of sight as perception where we see everything as it meets the eye through a "photographic model" (pp.7). He proposes that in addition to visual stimuli, perceptual experience uses movement to distinguish objects and events accurately and genuinely. It is also noteworthy to say that sight can also be deceitful or create an illusory world.

Noë speaks about how sight is not the sole indicator of the perception of an object. To illustrate this, imagine approaching an apple on a table. From a distance, you can see it is an apple because it has certain characteristics. These traits include its round shape, red colour, and stem. However, you cannot confirm it is an apple until you approach it, and grasp it, through engaging touch and proprioception. The affordance of movement and your sense of motor skills allows you to perceive objects in ways that present themselves as true in nature and achieve authentic perceptual experience.

B1. Affordances in Perception

With Alva Noë's emphasis on sensorimotor knowledge and its role in perception, the research delves into the concept of affordance. A concept developed by James J. Gibson (1940-1979), who was an American psychologist and perceptual theorist. Gibson's research focused on understanding how humans perceive and interact with their environment. *Affordance* as referred to by Gibson, is the action possibilities that the environment offers to an individual, depending on their abilities and goals (Gibson, 1979).

Influenced by Gibson's concept, the technique of affordance-based movement is noted by Larry Lavender, an American dance scholar and professor of choreography and improvisation. Affordance-based movement centres on the interaction between dancers and their environment, exploring the perceptual possibilities that the surroundings offer for action and movement (Lavender, 2008, pp.2).

Dancers engage with their environment using their sensorimotor knowledge to perceive potential movements and actions that the environment affords them. Throughout this creative research process of finding movement through the structured scores, the dancers are afforded the sound, but the movement is afforded their energy capacity for that

specific day. Various inputs of affordance change the consequences of choice and delivery during improvisation.

The phenomenological aspect of this interconnectedness between perception, bodily engagement, and the environment enriches the understanding of movement in improvisation. By embracing this perspective, dancers become attuned to the space's energy and mood, allowing certain movements and actions to emerge organically.

B2. Affordances in rhythm

Paola Crespi's describes Rudolf von Laban's 'Effort theory' in an empirical study called, "Drawing Rhythm: On the Work of Rudolf Laban" (2020) which complements the understanding of affordance-based movement. In her chapter, Crespi discusses effort as the internal emotional tensions underlying bodily movement (pp.56). This plays a crucial role in distinguishing what movements can or cannot be afforded within a given time. As the body changes speed due to these tensions, rhythm emerges as an indicator of time and effort, giving rise to musically visual movement (pp. 66).

By embracing an active and embodied approach to perception, dancers can unlock the creative potential within the space they inhabit, generating authentic and expressive performances. These theoretical foundations not only inform the methodology employed in this research but also offer potential avenues for further exploration in the understanding and expression of musicality through dance improvisation.

B3. Laban and Rhythm

Rudolf Von Laban (1879-1958), a Hungarian-born dance artist, choreographer, and dance theorist, stands as a towering figure in the landscape of Central European modern dance. His legacy is indelibly marked by his pioneering efforts in choreography notation and the formulation of the theory of effort. Through these contributions, Laban offers profound insights into the intricate interplay between movement, perception, and rhythm – concepts that remain fundamental to the study of dance and embodied expression.

In a comprehensive examination of Laban's unpublished writings, Carol-Lynne Moore, in her book titled "The Harmonic Structure of Movement, Music, and Dance According to Rudolf Laban" (2009), moves beyond a musical framework into human expression. Laban's approach, as illuminated by Moore, is grounded in the observation of human rhythm during everyday tasks. This approach allows him to perceive the dynamic

energy at play in these actions, which he uses to test and refine his theoretical framework (pp.149).

Moore's exploration of Laban's work extends into the realm of inner intention and impulses, as encapsulated by Laban's "Dynamosphere" theory. This concept portrays the dynamosphere as a virtual space within the psyche, capable of transforming states of being into expressive actions. Laban's overarching aim is to establish a profound connection between dynamic states and psychological functions. In doing so, he reinforces the notion that effort serves as a visible manifestation of an individual's inner world of thoughts and emotions (pp.155).

B4. Laban's Relevance to Colonization

Laban's emphasis on individual expression, as highlighted by Moore's research, harmonizes with the central concept of this study: allowing individual perspectives of culture and experience to contribute to the creative process.

Laban's theoretical framework not only provides the groundwork for understanding the nuances of human movement but also, intriguingly, offers a perspective within the context of colonization. As we navigate Laban's concepts in this specific context, the research uncovers the irony of employing elements rooted in occupation to explore and, potentially challenge the very qualities they embody.

Laban's theories often delve into the mechanics of movement and how it relates to an individual's inner thoughts and feelings. In the context of colonization, this analysis can extend to how Spanish colonizers controlled and restricted the movement of the colonized people of México. The research explored the limitations imposed on cultural expression, including dance and music, as a form of control and dominance.

This is ironic to the movement expressed through Laban's effort qualities and action qualities, as they are defined from a perspective driven to limit the movement of the people of México, but later the notation was used to standardize and institutionalize the ballet folklorico movement. Laban's theories can also be used to understand how elements of colonized cultures were appropriated and incorporated into the dominant culture, including dance and rhythmic expressions. The research involves this through studying the movement of indigenous people in México to create a national identity by borrowing and distortion of movements and rhythms from indigenous culture to homogenize it.

This research also explores how indigenous and colonizing cultures influenced each other's dance and rhythmic expression, leading to the creation of new forms and styles.

Laban's theory helped in understanding how cultural hybridity emerged during colonization. The researcher applied these theories to historical and cultural contexts to uncover the complexities of cultural exchange, adaptation, and transformation that occurred during this period.

This exploration takes us through the intricate path that Laban's theory traverses, tracing its influence within the historical and cultural currents of colonization. This intellectual journey unearths a development of ideas that reveal not only Laban's profound contributions but also the compelling dynamics that emerge when theory encounters complexities of real-world contexts.

With this foundation laid, our research takes a bold step into a realm where movement, perception, and rhythm converge. Guided by Laban's theories and viewed through the lens of colonization, the research endeavours to unravel the enigma of how seemingly disparate threads can weave together a fabric of understanding that transcends traditional boundaries. This fabric beckons the researcher to question, challenge, and ultimately reimagine the world of dance and embodied expression.

CHAPTER 3

Literary Review: Corporeality of Rhythmic Expression

How does institutionalizing the perception of action enable artistic expression?

C. Human Perception of Action

In the realm of artistic expression, the intricate connection between perception and action unveils a profound understanding of the human condition. Within this dynamic interplay, choreographers and musicians alike find inspiration in a myriad of sources – ranging from the palpable world to the ethereal realms of imagination and abstract thought. Regardless of the creative approach undertaken, art becomes a mirror of the human experience, a testament to the innate drive for expression.

The fusion of music and dance perception often gives rise to a sensory symphony, a phenomenon termed intramodality – the simultaneous interplay of visual, auditory, and kinaesthetic sensations. In this research, the attention falls on the interweaving of these senses. Stephanie Jordan, a notable research professor and former head of Roehampton's Dance Department, encapsulates this phenomenon by affirming that a viewer's rhythmic perception seamlessly melds with their auditory experience (Jordan, 2000). This

multisensory orchestration of motion and sound fosters an array of interpretations and avenues for physicalization, thereby underscoring the pivotal role that each sense plays in deciphering the intricate nuances of motion and sound within the corporeal realm.

As the research continues this exploration, the symbiotic dance between perception and action discloses itself, shedding light on the unspoken dialogue that transpires between the human sensorium and the artistic narrative. The journey inspects the depths of this perceptual symphony, unwrapping the layers of meaning interwoven within the dance of senses. By deciphering the language of perception, we endeavour to unlock new vistas of understanding, casting a luminous spotlight on the profound fusion of human insight and creative expression.

C1. Duality in Motion and Sound

To initiate a discussion on duality, it is crucial to acknowledge the profound awareness of the physicality that arises during technical practice. This awareness lays the foundation for a potential understanding of these disciplines on both a muscular and introspective level. In essence, dancers and musicians engage in a multisensorial exploration of motor skills, actively seeking patterns and habits within specific movements or contexts.

The dual nature of dance and music unfolds in how both artistic practices perceive soundwaves kinaesthetically, influenced by their distinct training paradigms. Dancers look inward, delving into the depths of introspection to "feel" the resonance of sound within their inherent range of movement. Conversely, musicians navigate the intricate landscape of their limbs' movement to conjure forth the melodic strains of their instruments. This dichotomy – where musicians externalize sound and dancers internalize motion – is a pivotal facet that must be meticulously examined within the realm of choreomusicology.

Central to the dancer's journey is the profound grasp of the duality inherent in perception and action – a comprehension that fuels authentic intention and fosters a seamless symbiosis between sound and body. Authentic intention, in this context, refers to the pursuit of aligning movement with auditory-visual harmony as closely as conceivable. From this intimate bond between sound and movement emerges the essence of embodied rhythmic action, a vibrant testament to the corporeal manifestation of musicality.

Ako Mashino, a distinguished ethnomusicology lecturer, highlights the interconnectedness of corporeality, music, and movement within performance in an article named "The Corporeality of Sound and Movement in Performance" (2020). She astutely

observes, 'Our visual and auditory cognition is intricately intertwined with sensorimotor integration – cognitive systems largely rooted in physical mechanisms shared by humanity. Yet, the meaning and value attributed to these bodily experiences are profoundly shaped by unique cultural contexts' (pp.38).

Mashino's insights harmonize with the core of this research, underscoring the profound link between an individual's corporeal engagement and their sonic expression. However, the complexities of perception are not always uniform, often influenced by sensorimotor deficiencies or a lack of experiential awareness. Mashino's perspective resonates with my exploration of the individual's corporeal immersion within the dance of sound.

In the complexity of movement and musical expression, interpretation emerges as a compelling hallmark. The individuals who execute the movements or play the instruments bring forth their cultural experiences and perspectives, infusing them into every note or step - whether in the fluidity of improvisation or in adherence to a structured score. Within the realm of dance, intrinsic properties are woven into the movement, while in the realm of music, the intrinsic pattern of notes interweaves with the extrinsic elements of mood, ambience, and aesthetics.

This research illuminated the distinct perceptual paradigms shaped by varied training approaches. Musicians often traverse the realm of music notes, notations, or auditory cues, while dancers navigate a landscape enriched by visual, auditory, and kinaesthetic input – a testament to the diverse sensory pathways that converge within the tapestry of artistic expression.

C2. The Aesthetics of Musicality

The pursuit of aesthetic pleasure within music and musicality – the sensitivity to sound score, patterns, notes, and melodies – stands as a cornerstone for comprehending the inherent vibrational qualities embedded in music. In the context of this research, the concept of musicality takes on a practical dimension, inviting exploration through movement – a gateway to embodying metric rhythms and responding to structured scores.

Aesthetics, often referred to as the perception of beauty, is inherently subjective, intertwined with the perspectives and judgements of the beholder. In contemporary society, aesthetics extends to encompass judgements, attitudes, and the assignment of value. Within the realm of this investigation, aesthetics aligns itself with the quality and fluidity of

movement. To encapsulate, this research places paramount importance on the fusion of vibrational qualities in movement that synchronously resonate with the essence of music.

In the context of this research, Neural Resonance Theory (NRT) provides a valuable framework for understanding the intricate development of musical rhythm and its profound implications for finding musicality during improvisation, particularly when engaging with culturally rhythmic elements. NRT, as elucidated by Parker Tichko, Ji Chul Kim, and Edward W. Large (2022), delves into the psychological experience of musical rhythm, highlighting the brain's remarkable capacity to recognize and anticipate patterns through oscillations distributed across the organism and environment.

NRT posits that neural oscillations are embodied rhythms, repeatedly experienced in a periodic variation. This concept prompts us to explore how these embodied rhythms, deeply etched within an individual through prior experiences and discernible trajectories, come to life when confronted with culturally rhythmic stimuli. These neural pathways, illuminated by rhythmic auditory cues, facilitate a complex web of resonance throughout the body (pp.11).

In the realm of dance improvisation, NRT finds embodiment in the dancer's ability to respond to the "hidden pulse," even when the rhythmic pattern momentarily recedes from audibility (pp.7). This "hidden pulse" manifests as a reflexive, reactive movement coursing through the body – a manifestation of habitual responses. Within this artistic development, recurrent patterns and motifs emerge as the dancer encounters a rhythmic refrain. Once a discernible pattern takes root, the fertile ground for choreographic development is laid.

Now, let the research bridge this understanding of neural resonance and rhythmic embodiment to the context of culturally rhythmic elements. Culturally rhythmic elements encompass the rich interchange of rhythms and movements deeply rooted in specific cultural traditions. These rhythmic are ingrained in the collective memory and cultural identity of a community. When a dancer engages with culturally rhythmic elements, they not only encounter a new layer of rhythmic complexity but also an opportunity to fuse their neural resonance with the cultural resonance of the music.

This interaction between neural resonance and culturally rhythmic elements becomes a dynamic exchange – a dialogue between the individual's embodied rhythms and those of the culture they are exploring. This exchange enriches the improvisational experience, as the dancer's neural resonance becomes attuned to the cultural nuances present in the music. It is within this dialogue that the dancer finds a profound sense of musicality, as they navigate the interplay between their own embodied rhythms, the "hidden pulse" of the music, and the cultural rhythms that form an important part of their improvisational journey.

In essence, Neural Resonance Theory offers a lens through which we can explore the development of musical rhythm in the context of culturally rhythmic elements. It invites the researcher to consider how the neural pathways forged through rhythmic experiences intersect with cultural rhythms, ultimately guiding dancers towards the discovery of musicality in the heart of improvisation.

C3. Applying the Theoretical Framework

The research seeks to explore the impact of embodied rhythmic sound scores, such as Mariachi music, on a contemporary dancer's musicality over time, both during improvisation in the studio and in live performances. By investigating the vibrational dynamic qualities present in Mariachi music, this study aims to uncover the ways in which exposure to such embodied rhythmic stimuli influences a dancer's artistic expression and creative decision-making process.

The overarching research question is examining the cohesivity between dancer and musician and the pursuit of visual and auditory harmony. In this context, harmony refers to the integration of inner and outer domains in the seamless unfolding of voluntary human movement, drawing from Laban's theory of effort and the "Language of Movement" (Laban, 1974).

This section aims to elucidate the methodologies employed in investigating the research question. The research design incorporated a combination of qualitative and quantitative methods to provide a comprehensive understanding of the improvisational dance process and its interactions with cultural norms, individual backgrounds, and the broader dance community. Qualitative methods, such as discussions, written communication, and participant questionnaires, enable capturing the richness and complexity of the dancers' experiences, perceptions, and emotions during improvisation. On the other hand, quantitative methods, including movement analysis, behavioural coding, and video and audio collection, allow for the identification of patterns, relationships, and differences within dance movements.

The literary framework guiding this research is informed by Paul Hodgins' paradigm of choreomusicology and Rudolf von Laban's theory of effort. This study integrated intrinsic and extrinsic properties to describe the relationship between music and movement. Through the lens of choreomusicology, this research examines the interplay of rhythmic, dynamic, textural, structural, qualitative, and mimetic elements intrinsic to the dancers' embodied

movements, along with the reflection of archetypal characters or themes, emotional and psychological states, and plotline events as extrinsic influences.

Through the qualitative and quantitative methods, these research objectives are to enrich the field of choreomusical study within traditional pedagogy, expand knowledge of embodied perspective through improvisation, and contribute to cultural development in researching these methods, particularly focusing on Mariachi music and *ballet folklorico*.

The research design encompasses a performative embodied research process that aims to practically apply the theory of cultural embodiment. Drawing from the theoretical foundations of choreomusicology, the study explores how dancers perceive music and movement, with an emphasis on the development of embodied kinaesthesia – incorporating both intrinsic properties, related to self and movements within the body, and extrinsic properties, concerning external stimuli like music.

Historically, dance and music have exhibited a symbiotic relationship, paving the way for the interdisciplinary field of choreomusicology. Influential contributions from scholars like Paul Hodgins have shaped the understanding of motion and sound relationships, unveiling nine categories that encompass both intrinsic and extrinsic elements. These categories involve rhythmic, dynamic, textural, structural, and qualitative aspects, alongside mimetic components intrinsic to the dancer's movements. The extrinsic factors encompass elements reflecting archetypal characters or themes, emotional and psychological states of individuals or groups, and important plotline events (Hodgins, 1992). Such insights from choreomusicology provide a framework for exploring the reciprocal relationship between music and movement within the context of contemporary dance improvisation to Mariachi music.

The theoretical underpinning of this research, combined with the integration of qualitative and quantitative methods, aims to present a holistic and culturally grounded approach to studying musicality in improvisational dance. By investigating the dancers' emotional and perceptual experiences, the research acknowledges the qualitative and evaluative nature of their judgements, shaped by the individual's epistemological and ontological perspectives. In doing so, this study seeks to shed light on the development of artistic expression and coexistence of arts, influenced by cultural heritage and artistic training.

The performative perspective within this research offers a unique opportunity to practically apply and observe the theoretical concepts of cultural embodiment. By exploring the interaction between dancers and musicians in live performances, this study aims to uncover how embodied rhythmic sound scores shape the intention of improvisation and

inform dancers' perception of musicality. Through choreographic and ethnographic lenses, the research endeavours to provide valuable insights into the dynamic relationship between music and movement, offering a deeper understanding of the choreomusical experience.

In summary, the following sections address the methodologies employed in the investigation of contemporary dancers' response to culturally rhythmic sound scores, exemplified by Mariachi music. By incorporating qualitative and quantitative methods and drawing from choreomusicology and Laban's theory of effort, the research aims to contribute to the fields of dance, music, and cultural studies. The exploration of embodied perspectives and performative research processes can potentially enrich pedagogical practices, preserve cultural heritage, and advance the appreciation and understanding of the art of improvisational dance within diverse cultural contexts.

C4. Metrical Rhythmic Categories

Many factors infiltrate the human body to react, respond, or direct sound into movement. The individual's perception and their ability to use the senses to find, understand, or interpret play significant roles in this process. Sensorimotor abilities, involving the physiological integration of sensory and motor functions, contribute to the parallel functions of motion and sound.

Stephanie Jordan, a distinguished British research professor of dance, has proposed her metrical categories of choreomusicology, which aligns with Paul Hodgins's implication of properties to describe the collation between sound and motion. Jordan's metrical categories encompass four fundamental aspects...

- 1. Duration and Frequency: These elements are closely linked to the TIME at which the dance piece is set, influencing the speed and rhythm of the movement execution.
- 2. Stress and Accents: Referring to the ENERGY emanating from the dancer's execution of movements, this category captures the dynamic qualities and emphasis in the dance.
- 3. Grouping of Sounds or Movements through Time: This aspect addresses the organization of sounds or movements in patterns, creating rhythmic phrases and motifs.
- 4. Patterns of Tension and Relaxation across a Work: This category delves into the interplay of tension and release within the dance, shaping its emotional and expressive qualities. (Jordan, 2000, pp.78; Mason, 2012, pp.20)

In simpler terms, Jordan's metrical rhythmic categories offer a dance-centric perspective of choreomusicology, focusing on the temporal and energetic dimensions of the

interaction between music and movement. These categories complement Hodgins's ideas of properties related to motion and sound, providing a comprehensive terminology to implement these properties within the practical framework of the research.

It is worth noting that while Jordan's outlook may be more connected and related to the ideas of Rudolf von Laban, both Hodgins and Jordan have significantly contributed to the advancement of choreomusicology. Their respective insights have enriched the field by shedding light on the interrelationship between music and dance and the underlying principles governing their coexistence.

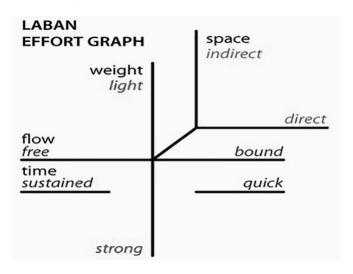
By incorporating these perspectives into the research design, the study aims to explore how the dancers respond to Mariachi music, considering not only the dancers' physical embodiment but also their perceptual and rhythmic experiences. The integration of these practical frameworks strengthens the methodological approach, guiding the investigation of musicality in improvisational dance from a more nuanced and multidimensional perspective.

C5. Theory of Effort

An implication of movement physicalizing and notation is seen in Rudolf Laban and F.C. Lawrence's effort theory in their book, "Effort" (1947). This theory defines eight action drives that describe the qualities of effort: Float, Punch, Wring, Glide, Slash, Dab, Flick, and Press. The Laban Effort Graph visually represents these movement identities based on four dimensions: TIME, FLOW, WEIGHT, and SPACE.

Figure 1

Effort Graph



The concept of effort explicates the movement qualities associated with each dimension. TIME, represented on the southern half on the horizontal axis, ranges from sustained to sudden or quick movements. FLOW, marked on the vertical axis, indicates the freeness or boundness of movement. WEIGHT, also on the vertical axis, ranges from lightness to strong movements. Finally, SPACE, in the upper right quarter, refers to the directionality of the movement path, distinguishing between indirect and direct movements.

Laban's method provides a common terminology and foundation for understanding movement qualities. By putting words to sound, it allows for the recreation of embodied dynamic qualities in dancers' bodies. However, individuals bring their own perceptions of these qualities based on their experiences, environments, and awareness.

The mental efforts implicated by Laban, such as attention, intention, decision, and precision, play significant roles in movement creation. Jean Newlove, Rudolf Laban's first assistant, describes these basic movement principles as involving an observation of WHERE we are in space, HOW we move, and WHAT KIND OF MOVEMENT ENERGY we use, which is the result of previously experienced inner impulses (Newlove, 1993).

C6. Movement Analysis

This conscious awareness and decision-making process while moving in space contribute to individual perception and interpretation of music into movement. It allows for the creation of expressive movement qualities and a dynamic understanding of improvisational tasks while listening and responding corporeally to music. As participants establish movement patterns, their awareness and understanding are filtered through human behaviour, giving rise to a definite language amongst the dancers.

Building on the concepts proposed by Susan Leigh Foster in "Reading Dance: Bodies and Subjects in Contemporary American Dance" (1986). As a dancer, choreographer, scholar, and movement analyst, she adds further depth to the exploration of movement qualities. Quality, often described using adjectives in relation to the senses or effort in dance, plays a crucial role in understanding the subtleties and nuances of movement (pp.77). Texture, another aspect of movement analysis, describes the relationship of sounds or movements to each other, encompassing cohesive movements where all parts contribute to the narrative, ensemble movements involving a dance group, and polyphonic movements with multiple sounds simultaneously interacting.

The integration of Laban's effort theory and Susan Leigh Foster's movement analysis provides a robust theoretical foundation for studying the connection between music and

movement in improvisation dance. The researcher provides awareness of the interpretation of language and understands the dichotomy between artistic expression and perceptual analysis (pp.98). The qualities of movement will be a grounding work for language but not a descriptor of movement. By understanding the complexities of movement qualities and their relation to sound, this research aims to delve deeper into the intricacies of embodied musicality during the dancers' improvisational performances to culturally rhythmic sound scores like Mariachi music.

CHAPTER 4

Conceptualizing the Performance

What's the significance of embodied rhythm through performance?

In the realm of music, rhythm assumes a profound role, shaping the very principle of auditory experience. When this rhythm intertwines with the art of dance, it takes on a transformative dimension, breathing life into culturally significant expressions. This chapter embarks on a journey to unravel the interweaving of embodying a specific rhythm, a rhythm introduced through the lens of profound cultural significance.

With a focused lens on an embodied approach to rhythm analysis and perceptual musicality, this research exploration ventures into the scope of Mariachi music and ballet folklorico. Both are emblematic cultural treasures that resonate within the heart of México's artistic heritage, radiating their influences across borders. More importantly, these forms of artistic expression hold an honest identity within strategically choreographed arrangements in space to depict musically visual harmony.

The inquiry delves deep, probing the ways in which dancers and musicians infuse this specific rhythm with vitality, transcending mere movement and sound over history. As the journey moves through the ethnography of Mariachi's origin, it encounters sources from colonizers who, while influencing Mexican culture, left an indelible mark on the rhythmic heritage. The fusion of musical elements and raw emotions woven into Mariachi music by the Mexican people fostered a profound sense of national identity and unity.

However, the quest of this research reaches far beyond historical markers. This consideration is an endeavour to unravel the intricate connections between rhythm, cultural development, and canonization of Mariachi music and ballet folklorico. Drawing from traditions and expressions, this research seeks to uncover how the embodiment of rhythm manifests through the movements of dancers and musicians.

Based on the ontological history transcended from a mixture of cultural expression to a now, artistic expression. In summary, this chapter sets the stage for an exploration into the world of embodied rhythm, tracing its origins, cultural significance, and impact on Mariachi music and ballet folklorico.

D. What is Mariachi Music?

Music is sounds, vocals, or instrumentation arranged in a particular order to deliver harmony, emotion, and mood. Harmony within Mariachi music can be seen as polyphonic, consisting of multiple instruments or notes played simultaneously to create a pleasing sound to the ear. In this paper, the focus is on *el son Jaliscience*, or the traditionally popularized rhythmic mariachi sound originating from the region of Jalisco, México. This is seen through the choice of music for the methodologies and performative output. Although, one of the songs chosen for its rhythmic dynamism named "El Niño Perdido" is a *son Sinaloense*, pertaining from the region of Sinaloa, on the West Coast of México. The emphasis of this part of the research is to showcase the variety of regionality in this art form.

Mexican music has changed through the years of colonization, slavery, and the blending of present cultures. Mariachi music is widely known as *mestizo* music, which refers to the blend of indigenous Mexican and Spanish descent. This mestizo music was formulated from influences of indigenous music, African polyphony, and Spanish flamenco (Serrano, 1994). Musical instruments were introduced by a mixing of indigenous and foreign sources (Mendoza, 1956). These influences were perceived and investigated through the corporeality, rhythmic sense, and musicality found in this style of music (Escalante, 2000).

The ever-present influence of vast sources infuses the research with a particularly difficult task of embedding a cultural significance that is authentic to urban commercialization. In examining Mariachi music, the research gains insight into the diverse origins and influences that have shaped its rhythmic character.

D1. The Origin of Mariachi Music

Ethnography is seen as studying a collective that shares similar social behaviours, customs, and traditions (Atkinson et al., 2007). Through ethnography, this research interprets findings of Mexican identity and culture through dance and music. Ethnographers have studied and analysed the standardization of ballet folklorico movements to the

canonization of Mariachi music from México to the United States (Jáuregui, 1990; Serrano, 1994; Escalante, 2000). From the readings around this research, there is a continued discussion of whether this standardization of movement and sound helps or hinders the authenticity of Mariachi music and ballet folklorico.

In addition to those discussions on urbanisation, there is an ongoing debate about the origin of Mariachi music established by the fact that music was shared and taught orally and interregional at the beginning of this history. Also noteworthy, is that even though the origin can be centred in multiple places, the sounds and movements of each region differ. This understanding of differences is a physical reminder of the expansion of an identity through social circumstances.

To identify a single origin is far too fetched within a country that reaches far, borders many, and was influenced through colonization by many Western societies. This research does not choose to provide a singular view but indulges the reader in a sliver of history and its impact on an artistic form that developed the concept of undergoing this project. The performative video shared during the presentation of this research contained all the information presented through the development of music and dance in México.

D2. Development of Music and Dance in México

In this section, the research delves into the historical evolution of music and dance in México, tracing the roots of these art forms from pre-colonial times to their significance in the 21st century.

While the Aztec culture was present before colonization, this research is centred on how the infiltration of rhythm and embodiment served as a guide to the presence of instruments and physicalization of movement, a development that began in the 13th century.

The performative output included in-depth research into the ethnographic view of music and dance from México. This perspective is deeply ingrained through historical, religious, and spiritual contexts, dating back to the time before the Spanish conquest in the 16th century and continuing to influence the cultural landscape well into the 21st century.

The foundation of this section draws from Sanjuanita Martinez-Hunter's doctoral dissertation from 1984, titled "Dancing Throughout Mexican History." Hunter describes the social and cultural evolution of dance in contrast to the historical events in México starting

with the Aztec empire till the present day. The information presented is a summarized version of what can be seen at the beginning of the performance in the visual presentation (Refer to the link in Appendix A: Part 1 and 2).

This historical review encompasses various sources, including written documents in registrations, diaries, and media articles. It also introduces the influence of various courtship dance styles. Through a timeline, the researcher guides the reader on a journey through the restrictions, regulations, and transformations of indigenous art forms influenced by Spanish colonization. This transformation ultimately led to the popularization and invention of tradition in Mexican music and dance.

The presentation of this traditional art form brought about changes not only in dressing garments but also in rhythmical patterns and an appropriation of indigenous culture. The dressing garments were first seen as rural drapes from *campesinos*, or farmers. After the influence of Spain, the garments were adopted from the horsemen, what Mexicans call the *charro* uniform. This *charro* uniform is depicted by its gold embroidery and troubadour-style waistcoat, topped off with a large sombrero in the same embroidered style of the outfit (Escalante, 2000, pp.92).

Music became a powerful outlet for communication and nationalism within Mexican culture. The political motive to unify the nation played a key role in the canonization of this music as a symbol of national identity. Mariachi music was significantly supported by the government and employed for political purposes, entertaining and impressing foreign powers. This served as a form of exhibiting a sense of community during a crucial time in Mexican history (Escalante, 2000). The political agenda aimed to emphasize indigenous roots while embracing the mixture of influences from the history of colonization. Mariachi music became a symbol of patriotism in Mexican culture, embodying the egalitarian ideology that resonates even today.

By examining the development of music and dance in México, the reader can gain clarity regarding the evolution of cultural expressions that have contributed to the vibrant traditions present in the 21st century.

D3. Ballet Folklorico: Standardization of Movement and Cultural Identity

This section explores the evolution of Ballet Folklorico, its standardization of movement, and how it has contributed to the expression of cultural identity in México.

In the 1960s, Ballet Folklorico standardized its movements as a pedagogical tool for teaching this distinctive style of dance (Pearlman, 1988). This standardization wasn't merely an artistic choice; it was also closely tied to political efforts to institutionalize the national identity. The government played a crucial role in educating students about México's rich history through dance and music.

However, this standardization didn't come without controversy. While it provided a sense of identity and belonging to the mestizo population, it also associated traditional dance with the ceremonial world for indigenous people. Despite these differing perspectives, both aimed to entertain, representing a significant departure from the origin and improvisational movements of the steps dances to the *sones*, or regional "sounds", originally.

The credit for pushing in institutionalizing can be attributed to the Ballet Folklórico de México, led by Amalia Hernández (Hutchinson, 2006). Hernández's choreographies were ground-breaking, becoming the first to be televised and performed internationally of various sones and *jarabes*. This choreography was intricately linked to specific music, enabling the precise alignment of steps with the rhythm of the songs. A misstep could mean being off-themusic for the rest of the performance, highlighting the importance of synchronization.

This regularization of technique provided a pedagogical tool for learning dances from various regional states in México, even extending across borders. It introduced a standardized form that provides a universal approach to this art form. This standardization could be compared to the technical institutionalization of ballet, where technique transcends mere artistic expression, allowing for the identification of movement qualities specific to a particular piece of music.

Despite the seemingly identical choreography in present-day presentations, some movements and spatial configurations remain subject to the choreographer's discretion (Pearlman, 1988). This raises questions about authenticity and originality in the traditional sense. Considering the historical evolution of *ballet folklorico*, each step is choreographed to align perfectly with the music. *El zapateado*, for instance, is executed in perfect harmony with the rhythmic dynamics of the music. This unique characteristic forms the basis of the research's analysis, which aims to understand how standardized movements have been employed to convey cultural identity and history within the context of ballet folklorico.

D4. Methodizing Mariachi Music: A Holistic Conclusion

This section synthesizes the ethnographic research findings on Mexican folk-style music and dance and their significance in both intrinsic and extrinsic dimensions.

Throughout this exploration, the research findings witnessed the intrinsic and extrinsic properties of Mexican folk-style music and dance. Ballet Folklorico, as an integral part of this tradition, exemplifies the native aspect, offering an embodied interpretation of Mariachi music through rhythmic movements like el zapateado.

Mariachi music, on the other hand, contributes superficially by narrating the stories of rural Mexican life, celebrating various occasions, and portraying courtship, all deeply rooted in regional cultures. These extrinsic dimensions provide an emotional depth to the lyrics and music, creating a complex interplay of emotions. It's worth noting that the emotional response to Mariachi music isn't solely dictated by the lyrics; it can sometimes contrast with the instrumental tone, eliciting a unique emotional experience.

This research has strategically positioned Mariachi music as an important variable in the conceptualization of the performance. Its polyrhythmic nature, characterized by multiple rhythms coexisting, and the use of sesquialtera rhythm, an alternation between 3/4- and 6/8-time signatures, has roots that some sources trace back to African origin (Pérez-Fernández, 1990). These rhythmic qualities proved invaluable in our methodologies approach, anchoring both researchers and participants to the distinctive regional style of this music. By aligning the research with this rhythm, the researcher has ensured an embodied approach firmly rooted in tradition.

In the performance context, this historical and cultural background has served as a bridge connecting our audience with the profound history that has shaped this research. It underscores the significance of embodied rhythm and cultural movements in Mariachi music and folk-style dance traditions. It's through this comprehensive understanding that the researcher could guide participants in-studio, facilitating the integration of the emotional perspectives sought through the folk-style dance tradition. In conclusion, Mariachi music, with its polyrhythmic essence, forms the very foundation of the embodied approach, providing a conduit to connect participants with a rich and vivacious cultural tradition.

This holistic view underscores the depth and complexity of the exploration into Mexican folk-style music and dance, setting the stage for the performance that will vividly demonstrate these intricate relationships.

CHAPTER 5

The Practical Part: From Studio to Stage

E. Participants and Limitations

The target population of this research comprises individuals interested in choreomusicology and the preservation of Mexican cultural heritage. Participants included dance artists engaging in various audio, visual, and physical realms, who were selected through an outreach social media post to attract attention to the project. Additionally, colleagues and artists, with prior artistic interaction with the researcher, were invited verbally to join the study. Selection criteria were based on participants' interest in music and dance and their demonstrated interest in the subject matter.

It is crucial to acknowledge that the dancers collaborating in this research are ablebodied individuals with the ability to hear, see, and dance. Their background training and expertise influence their movement choices and interpretation of dynamic qualities. For instance, a ballet dancer might be instantly reminded of their ballet training upon hearing a symphonic classical piece, while a hip-hop dancer might instinctively move in response to a rap song, drawing from their training while they improvise. Such diverse training backgrounds result in multiple and distinct perceptions of the music, especially when it's introduced through a structured rhythmic score.

As a choreographer, I recognize the significance of these background training influences, and while they contribute to individuality, they also present potential boundaries and limitations. Habitual movement patterns can hinder dancers from exploring the music purely based on its sound and the emotions it conveys. Thus, adaptability and awareness of these limitations are crucial for the dancers to filter and authentically develop their musicality during the exploratory research.

Dance plays a profound role in artistic practice, deeply influenced by cultural experiences. These cultural experiences influence the physicalization of sound or the creation of sound with the body, often taking the form of rituals, embodied knowledge, or therapeutic expressions. A dancer's cultural background, including the music they listen to, social dances, gender roles, ability to move, and various life experiences, significantly filters into their perception and embodiment of ideas within the dance.

The methodologies employed in this research embrace a diverse group of participants with a passion for music, dance, and Mexican cultural heritage. The choreographic method considers individuality, training, and cultural experiences as influential factors in shaping the dancers' perception and expression of music through movement. By fostering an awareness of these influences and encouraging exploratory research, the study aims to unveil a rich intimacy of embodied musicality and contribute to the understanding and preservation of Mexican cultural heritage within the realm of dance.

The participants faced a few challenges during their in-studio practice. Availability, communication, and direction were limited. The project began with three dancers and ended up with five dancers. One of the original dancers dropped out mid-way. Two dancers came into the process later than the others. The availability of the dancers made it difficult to rehearse a cohesive dance creating repetitions of exercises and direction. Some dancers experienced more tasks with durational applicability while others didn't experience as much time. This temporal change in tasks created the results of this research incomparable because the variable of dancers kept changing.

E1. Data Collection Methods

I presented a group of individuals studying in the arts of music, dance, or both, with a series of tasks aimed at influencing the corporeality of their improvisations. Whether they were improvising based on a structured score or a specific identifying quality, participants had the autonomy to invent and explore various rhythms and patterns guided by their sight, hearing, and kinaesthetic.

Listening to Mariachi music during this process allowed for the participants to delve into a sequential rhythmic dynamic that they might not be familiar with previously. This shift in perspective became an empowering action, granting individuals the authority to connect their initial movement with the genre of music they had not explored before. By embedding dynamic qualities, force, texture, or mood into their improvisations, participants embarked on a journey of investigation, seeking uncharted paths and isolated experiences that could potentially ignite other likenesses or abilities never fully explored.

Before and after each task, I presented self-reflective questions to each dancer, enabling them to be introspect and challenge their memory regarding their improvisational experiences, thereby assisting in pinpointing the nuances of their responses to the given tasks. Self-awareness was a crucial idea in gaining a visual perception of the embodied rhythm.

E2. Methodizing Live Musicians

In addition to intrapersonal prioritization, the musicians played a vital role in the research process by presenting the sound audibly and interpersonally. They actively embody the rhythmic qualities emphasized through tempo, pitch, tone, volume, and dynamics. Involving live music during the research not only enhanced the musical development of the musicians to dancers but also accentuated the investigation of auditory visualization for the

dancers. Auditory visualization, in this context, refers to the ability to physically internalize movement and sound waves, making them perceptible through the perceiver's eyes – a concept closely aligned with the idea of musicality. During this process, movement also played an essential role for the musicians, providing an opportunity for them to engage with their music through a bodily medium, thereby enriching their own musical interpretations.

By combining the elements of live music, improvisational tasks, and self-reflective questioning, this research sought to unlock the unique relationships between music and movement, and how these connections varied among participants from different artistic backgrounds. The presence of live musicians amplifies the experiential aspect of the research, allowing for a richer exploration of auditory visualization and embodied musicality. The involvement of both musicians and dancers in this interdisciplinary endeavour provided a dynamic interplay, leading to a profound understanding of the transformative power of Mariachi music on the dancers' movement expressions and the musicians' performance dynamics.

This collaborative exploration of musicality and movement expanded the boundaries of artistic practice and choreomusicology, enabling the researchers to unearth the interconnectedness between sound, body, and creativity. The utilization of self-reflective questions ensured a rigorous investigation into the participants' experiences, providing valuable insights into their thought processes and embodied responses to Mariachi music. By shedding light on the process of auditory visualization and its impact on improvisation, this research endeavours to contribute to the fields of dance, music, and cultural studies, enriching our appreciation and understanding of the art of improvisational dance within diverse cultural contexts.

To maintain a fully present and immersive experience throughout the rehearsals, I made the deliberate choice to record the sessions. The video recordings serve as a valuable aid in remembering movement qualities and identifying dynamic changes within each individual dancer. These recordings will be instrumental in documenting and holding the progress of this research. Simultaneously, I maintain a journal where I diligently jot down notes and questions, ensuring that each experience is thoroughly documented. It is crucial to emphasize that the journal contains no identifiable information about individual research participants, thereby preserving their privacy and confidentiality.

All data collected from the participants, including video recordings and voice recordings, are stored securely online with a private folder accessible only through a password-encrypted laptop that is exclusively accessible to the researcher. These stringent

measures are taken to safeguard the participants' personal information and research data, adhering to the principles of data protection and privacy.

E3. The Ethical Part: Credibility

In adherence to ethical requirements, all participants involved in this culturally embodied rhythmic investigation have provided informed consent. Prior to any video recording or voice recording, each participant was presented with a detailed consent form explaining the purpose and nature of the research (Refer to Appendix B). The consent form clearly outlines their rights as research participants, including the option to withdraw their participation at any point without consequence. It also addressed the measures taken to maintain anonymity and confidentiality. Only after obtaining explicit written consent from each participant did the recording process commence.

In addition to securing informed consent, I have ensured compliance with all relevant ethical guidelines and regulations governing research involving human subjects. This includes obtaining approval from the appropriate ethics review board to conduct this study. As the researcher, I take full responsibility for adhering to ethical principles and upholding the dignity and autonomy of all participants involved.

Ethically, I am dedicated to establishing a safe space for dancers to express themselves as individuals and cultivate self-awareness without judgment. My aim was to foster a sense of group cohesion and mutual understanding among the dancers. Throughout the research, I did not impose any actions or movements on the participants, allowing them the freedom to make choices based on their comfort level. The entire process remains open to change, the dancers involved will always have the autonomy to leave the space if they feel the need to do so.

Throughout the process, we engaged in open and candid conversations, sharing our thoughts, experiences, and vulnerabilities. As the facilitator, I exhibited my own insecurities and limitations openly and without remorse, creating an environment of trust and sincerity. Before commencing the research, I presented questions to the participants, encouraging them to share their boundaries, skills, and expectations. In return, I shared my status and intentions, ensuring transparent communication from both sides.

I am highly receptive to questions and concerns from the participants throughout the research journey, and I provide contact information for them to seek support from professionals if the need arises. By adopting a comprehensive and ethically sound approach to data collection, storage, and privacy, this research endeavours to maintain the highest

standard of research integrity while shedding light on the rich cultural embodied rhythmic investigation within the realm of improvisational dance. The commitment to ethical considerations not only preserves the participants' trust but also bolsters the validity and reliability of the findings, contributing to the credibility and impact of this study within the fields of dance, music, and cultural studies.

E4. Choreographic Methodologies

How does a contemporary dancer improvise to a specific culturally rhythmic sound score like mariachi music in-studio and in-performance?

In this choreographic method, the significance of individuality in taste and appeal becomes evident in the perception of music and movement. Movement, in this context, can be sonic – relating to sound, visible – seen by the audience, tactile – tangible to the dancer, and a kinaesthetic phenomenon – awareness of muscles and joints. The dancer's body transforms into an instrument, not only as an outlet for musical sound but also as the intersection between sound and motion. The ability to hear music can evoke emotional responses based on memory and triggers.

The process of working with these methodologies included various outlooks and perspectives. The following methodologies included working with a skirt, learning cultural footwork, identifying time signatures in genres of music, using structured rhythmic scores for improvisation, the value of counting, and lastly, delving into the eight Laban action qualities. The participants used improvisation as a tool for discovery and creativity. As mentioned before, the theoretical formality of this research is rooted in Laban's effort theory and the phenomenology of perception.

The research process began in the Trinity Laban dance studios and were held once a week in a durational 2-hour rehearsal practice. As the research began the participants varied in numbers which posed a challenge of continuing a well-paced rehearsal schedule. The research began through a simple exercise that could be repeated and could engage various participants without interrupting the flow of the rehearsals. The following exercise engaged the participants to the music through a progressive improvised movement exploration.

To modulate flow, effort, and timing, a system of energy and effort percentages was introduced. Before each session, a dialogue allowed participants to gauge their energy levels, enabling alignment with appropriate effort percentages. This communication method ranged from "moving at 10% of today's energy level" to "moving at 100% of your energy

battery." This approach facilitated a tangible understanding of effort's role in improvisation, fostering a balance between individual expression and collaborative engagement. This personalized approach regarding individuals' energy levels was introduced as an idea to create a safe space for understanding perspective and the phenomenology of human condition. This became as an acknowledgement to consent and healthy collaborative efforts to enable a creative space for those who participated.

The researcher began by exploring the dancer's sensitivity to listening to Mariachi music by inviting them to close their eyes while listening to the music through the speaker. The dancers were addressed to not engage in movement while listening to it for the first minute and a half (1.30). When told to, they were welcomed to introduce some movement within their body by splitting the upper and lower half, or only moving the limbs. The movement was always aware of being in tune with the music they could hear which was Mariachi music.

Most participants had never heard Mariachi music in their lives, while others have memories and cultural heritage ties to the music, and others have been made aware of its existence before. But none of them have ever engaged with Mariachi music with improvised contemporary dance movements. They share the invitation to explore the dynamic and joyful music embodied in Mexican culture. For some, a once in a lifetime experience to embody a cultural heritage and ride the harmonic flow through strategically theorized methods to engage the audio, visual, and kinaesthetic perspectives.

E4. A: Counting/Numbers

Numbers have a valuable role in understanding the musicality of movement and music. To make movement musical and to "dance on the beat," the dancer must first understand the musical component. Choreographers and movement artists will have various ways of understanding music and depicting musicality. In this case, the participants were introduced to numbers to develop an awareness of rhythm.

The initial phase of this improvisatory session involved participants learning a clapping pattern centred on an eight-count rhythm. The pattern progressed as follows: the first clap on count 1, followed by a clap on count 8, and subsequently incorporating the counts before that. The sequence continued to expand in reverse order until participants were clapping on each count. A visual aid was provided by the researcher to reinforce the movement accentuation, aiding participants in grasping the pattern structure.

1234567812345678123456781234567812345678123456781

This clapping pattern served as an auditory guide for the ensuing improvisation. Accompanied by musicians, the dancers synchronized their movements to the pattern's rhythm. The musicians' participation further emphasized synchronization, with their music ceasing when claps were omitted. The learning process began with the participants repeating the pattern in claps and counts, then with only their movement.

As familiarity with the pattern grew, both musicians and dancers transitioned from relying on strict counting to embracing the fluidity of the rhythm. Over time, the dancers transcended numerical constraints and found movement within moments of silence. Even without the counting, the dancers were challenged to let the music guide and release them from the counting to move through muscle memory.

The musicians were an important source to the liveliness of embodying the art of authenticity and musical harmony. Their contribution stood as a physical sound and idea that was interwoven as a challenge and test for all musically inclined individuals or artists. The musician's involvement led the dancers to hear various sources of tone and pitch, which would inspire different pathways to their movement.

E4. B: Structured Sound Scores

In this segment of the research methodology, participants engaged in structured sound scores to explore the interplay between rhythmic patterns, movement generation, and energetic dynamics. The objective was to investigate how a predefined auditory sequence could guide and influence dancers' improvisational movements and perception of rhythm (Refer to Appendix C: Part 1 and 2 for Video).

Participants were challenged to explore movement through various lenses: isolation, transitional fluidity, and opposition to the clapping pattern. This exercise stimulated rapid ideation and movement execution, prompting participants to generate creative responses without predetermined notions. By facilitating quick decision-making, this practice enhanced participants' creative thinking and honed their sensitivity to movement in relation to time. The participants had to manage their time, effort, and quality of movement with every layer of instruction, creating a keen awareness of self and affordance of space in improvisation.

The structured scores, akin to guided improvisational frameworks, served as a conduit for participants to synthesize movement ideas. These scores functioned as temporal

guides, enabling participants to gauge movement duration, initiation points, and necessary effort allocations. This approach proved effective in generating organic and uninhibited movement ideas, fostering an environment free from stylistic constraints or self-judgement. Each participant swiftly cultivated a heightened awareness of response timing, weight modulation, and flow adaptation.

This methodology, rooted in structured sound scores, contributes to the research exploration of embodied rhythm by illuminating how auditory cues can inform and shape movement expression, enriching the participants' dance experience within Mariachi music and ballet folklorico. Understanding a rhythmic pattern enables the dancer to begin the exploration of physical and visual musical movement with an accompaniment. The emotional engagement of the participants with the auditory cues and movement execution deepens their connection to the musicians through enjoyment, inspiration, and community.

Beyond this research, the structured sound scores can be further explored as a pedagogical tool for rhythm or a choreomusical tool for notation. In accordance with this practice-as-research, the integration of structure sound scores aligned with the overarching research goals of exploring embodied rhythm by fostering a corporeal exploration of rhythm and creativity. This warm-up exercise implicated an affordance method of improvised movement. This methodology is the gateway to embodying rhythm in relation to Mariachi music and ballet folklorico.

E4. C: Working with a skirt

The following methodology explored within the improvisational sessions centred around the utilization of a prop, specifically, a ballet folklorico skirt. This unique object, comprising a minimum of 22 yards of fabric adorned with vibrant ribbons along its bottom edge, serves as a portal to understanding the cultural intricacies of regional dances in México. Evoking the concept of mestizaje, a blend of cultures, the skirt embodies a fusion of Spanish cultural influences, including elements from the troubadour suits and flamenco skirt, thereby exemplifying the multifaceted heritage of Mexican ballet folklorico (Refer to Appendix D for Video).

Integral to the research process, the ballet folklorico skirt assumes a pivotal role in the exploration of rhythmic attributes. Its distinctive qualities encompass undulation, reverberation, and extension, imbuing movement with a dynamic flow. Yet, paradoxically, this prop can also impose a contrived rhythm on dancers, potentially limiting the natural ebb and flow of their rhythmic expression.

Participants engaged with the ballet folklorico skirt individually, each undergoing a distinct experiential journey. While some received guidance on how to manipulate the skirt, with an emphasis on playful exploration and responsiveness to its weight, others embarked on creative experimentation, crafting inventive floorwork and movements. This divergence in instruction aimed to scrutinize whether verbal cues influenced participants' interactions with the prop during improvisation.

Once familiarity with the skirt's movement dynamics was established, participants delved into exploring how their rhythmic actions resonated with the accompanying music. The skirt, acting as an agent of cultural embodiment, facilitated a nuanced interplay between movement, dynamics, and musical harmony. As participants responded to the musical attributes, they felt the weight of the skirt, embraced its circularity, and enriched their movements in alignment with the melody and harmony.

The ballet folklorico skirt radiated qualities of joy, infusing the dancer's expressions with newfound warmth and creative energy. The act of "playing" with the voluminous skirt offered a fresh perspective, fostering a distinctive sense of musicality that complemented their stylized movements.

Notably, the prop's characteristics – its wave-like undulations, suspended movements, and inherent weight – exerted a profound influence on dancers' kinetics. This influence, while inspiring creativity, simultaneously introduced limitations. The skirt's expansive fabric could obscure certain movements, particularly intricate footwork, and its constrained range of motion prompted dancers to explore low, fast, and dynamically charged arm movements.

To unobtrusively capture dancers' interactions in real-time and provide an unfiltered view of their engagement, a camera was strategically positioned outside the performance space, documenting the entire process. Subsequent analysis of video footage and notetaking afforded the researcher a comprehensive vantage point for dissecting and evaluating the movements within the broader context.

This methodology of working with the ballet folklorico skirt epitomizes a fusion of cultural resonance and creative exploration, serving as a foundational stepping stone for a deeper investigation into embodied rhythm within the realm of Mariachi music and ballet folklorico.

The ballet folklorico skirt contributes to deepening our understanding of embodied rhythm within the context of Mariachi music and ballet folklorico. This iconic skirt holds not only a gendered representation of femininity and tradition but also embodies a unique perspective of courtship in the Jalisco regional music style. Worn exclusively by the female

dancers, the skirt's movements integrated with the transitory flow and circulatory patterns, complementing, or contrasting the intricate footwork. By donning the skirt, dancers are afforded novel possibilities, particularly in the manipulation of their arms and wrists as they spin, adding layers of complexity to their rhythmic expressions.

Beyond its physical attributes, the use of the skirt establishes a profound connection to cultural heritage, bridging the gap between generations of dancers who have adorned this garment. This connection enriches the exploration of embodied rhythm, providing a tangible link to the historical and artistic evolution of Mariachi music and ballet folklorico. Through the skirt, participants delve into the visceral experience of wearing a garment steeped in tradition, enhancing their capacity to internalize and interpret the rhythm of the music.

In summary, the ballet folklorico skirt serves as a dynamic conduit through which dancers engage with and embody rhythm, thereby contributing significantly to the overarching goals of this research. By unravelling the layers of movement, cultural symbolism, and historical resonance encapsulated within the skirt, the participants deepen their comprehension of the intricate relationship between music, dance, and human experience.

E4. D: Learning El Zapateado

This following methodology delves into the intricate world of traditional rhythmic footwork known as *el zapateado*. Rooted in Mexican cultural heritage, el zapateado encompasses precise steps that incorporate various parts of the foot, including the heel, toe, and flat foot. These steps synchronize with accompanying Mariachi music, embodying a culturally significant rhythm within ballet folklorico (Refer to Appendix E for Video).

Derived from instructional videos by the *Ballet Folklorico de Los Angeles*, this methodology aims to uncover the profound connection between rhythm, movement, and cultural expression. Kareli Montoya's choreographic expertise, demonstrated through her work in both traditional and contemporary contexts, forms the foundation for learning these distinctive steps. The researcher learned the following steps and broke them down, provided visual demonstrations, and offered individualized guidance to all participants during the practices.

El zapateado encompasses distinct groups of steps, often varying by region within México. In this exploration, our focus narrows down to the three steps originating from the Jalisco region. The first step, known as "caretilla," involves a rhythmic stomping sequence

that cultivates an understanding of weight transfer and rhythmic flow. Participants engage in repetitive practice to internalize this foundational step's rhythm and movement dynamics.

The subsequent step, aptly named "*el zapateado*," introduces a combination of stomps and heel clicks performed on a single leg. This intricate footwork requires precision and coordination, challenging participants to embody rhythm through precise movement.

This final step, the "cepillado" or "taconeado," constitutes a six-part sequence of steps involving stomps, heel scuffs, and rotations. Mastery of this step demands a nuanced interplay of posture, body tension, and movement control. Overcoming these challenges enhances participants' embodiment of rhythm within the context of ballet folklorico.

Throughout this process, participants gain a profound appreciation for the interplay between rhythm, culture, and movement. Learning el zapateado not only deepens their understanding of Mariachi music but also allows them to embody a cultural experience, attuning their auditory skills to the rhythmic essence of ballet folklorico. Some of the participants shared their reflections on learning el zapateado and described it as difficult but with time gained more corporeal habituality to it, making it easier to execute.

Incorporating these traditional footwork patterns into performance extends the investigation into embodied rhythm. Participants integrate these steps to enhance their technical proficiency, connecting with the historical and cultural legacy of the dance form. Furthermore, this exploration forms a historical link, as some of these steps are found in iconic performances like the Jarabe Tapatió, showcased through Josephina Lavalle's choreographic Laban notation of the Mexican hat dance.

Overall, the learning of el zapateado serves as a tangible bridge between rhythm, movement, and cultural heritage, exemplifying the essence of embodied rhythm within Mariachi music and ballet folklorico. This style of footwork is closely like el zapateado from Spanish flamenco, naming its source of origin from the colonizers. Another aspect of sharing cultures from across the waters. El zapateado along with the ballet folklorico skirt are two elements of cultural fusion and stand as cultural and historical ties.

E4. E: Laban Action Qualities

This methodology employs Laban's Action Qualities to develop a movement language. These qualities encompass time, space, weight, and flow, combining to convey specific actions and expressions. Acknowledging Laban's complex history, including its colonial roots, adds a layer of irony to this research's queer, feminine, and decolonial

perspective. While Laban's terms represent a colonial practice, they serve to challenge conventional movement choreography creation (Refer to Appendix F for Video)

Through embodying action qualities, a deeper understanding emerges. This approach transcends the limitations of language, recognizing that time, space, weight, and flow exist on a fluid spectrum rather than rigid categories.

The research initiates dialogue around Laban's legacy, examining its influence on the Western dance perspective. It seeks to explore how this language moulds dancers' perceptions across their careers and its relevance to specific genres like ballet folklorico.

The language used to create the next phrase work/solo comes from the action qualities: dab, float, press, wring, glide, punch, slash, flick. The table below will show the actions based on time, space, weight, and flow.

 Table 1

 Laban Action Qualities in reference to Time, Space, Weight, and Flow

Action:	Time	Space	Weight	Flow
Dab	Sudden	Direct	Light	Bound
Float	Sustained	Indirect	Heavy	Free
Press	Sustained	Direct	Heavy	Bound
Wring	Sustained	Indirect	Heavy	Bound
Glide	Sustained	Direct	Light	Free
Punch	Sudden	Direct	Heavy	Bound
Slash	Sudden	Indirect	Heavy	Free
Flick	Sudden	Indirect	Light	Free

Participants engaged in exercises where they embodied action qualities through improvisation, fostering organic movement. Dancer's solos were inspired by movements resonating with action qualities. Each dancer chose movements based on personal perspectives and experiences with the action word. These actions formed a phrase known as the "action solo." This evolved into movement solos explored using time signatures and music genres, fostering flow and connectivity. The result was a full combination ready for presentation.

To prompt dynamic shifts, surprise elements were introduced. The researcher rapidly articulated action words, granting minimal time for dancer response. This encouraged increased agency and a potential for unusual flow between movements. Some actions shared time or space qualities, easing their execution. However, the challenge was fluidly connecting opposing movements, embracing the liminal space between. This breakdown of transitory flow spurred pathways of thought, fostering new movement combinations. The introduction of surprise prompted qualitative shifts, spurring inventive movement combinations.

Diverse music genres were introduced for inspiration. Integration of diverse music genres evoked emotional responses, enriching the creative process. While music had limited influence on actions. It significantly impacted tempo and emotional expression. Dancers identified songs they favoured and noted their potential to evoke specific movements. The audio stimulus bought about emotional responses that words alone couldn't elicit. Familiarity with the music empowered the dancers to emphasize gestural and isolated movements, adding musicality to their expressions.

After selecting action words and movements, dancers constructed solos. The order of action words was determined randomly, aligning with numbers. Following the chosen sequence, movements associated with each number were refined. Once this sequence was established (Slash, Glide, Flick, Press, Dab, Punch, Float, Wring), dancers added motifs before and after-action words.

The goal was a solo with each movement lasting three counts. This ensured alignment with the time signature of the accompanying Mariachi music. The action solos were placed within the musical sound score of "El Son de la Negra".

E4. F: Time Signatures and Genres of Music

All music contains a time signature, a musical notation communicating the rhythmic structure of a musical composition. Represented as a fraction, the upper number indicates the number of beats in each bar or measure, while the lower number represents the value of each beat, or how to count the beat. A common time signature is a 4/4, denoting four beats in each measure. A 3/4-time signature is often referred to as "waltz time" due to its three beats per measure.

Time signatures play a fundamental role in assisting musicians to read and interpret a piece's rhythm, aiding in maintaining a consistent tempo and enabling structured musical organization. The rhythm of the music represents a temporal notation for measures, beats, and notes within a composition. They also serve as markers within music, allowing the performers to grasp the desired pace.

Understanding time signatures aids dancers in interpreting and synchronizing their movements to the music's rhythm. It acts as a shared language between dancers and musicians, facilitating a strong connection between movement and music. The mathematical structure of music creates a corresponding mathematical placement of movement, facilitating synchronization and interpretation of the music's rhythm. This understanding results in a more harmonious performance, enhancing dancers' musicality by incorporating pauses, accents, and dynamic changes aligned with the rhythmic structure. Additionally, time signatures provide natural cues for transitioning between different movements and sections of the dance, and insights into tempo adjustments to align with pace and speed of music (Refer to Appendix G for Video).

The time signature of the first musical sound score, "El Son de La Negra", significantly impacted dancers' perspective and understanding of Mexican music's structure. Set in a 3/4-time signature, this song was pivotal in crafting the "action solos." The three beats within each measure served as starting and ending points for actions in the solos. By emphasizing accents and anticipating transitions, dancers employed counts to establish a rhythmic foundation for their movements.

The skipping beat, unique to Mariachi music, posed a challenge, requiring repeated listening and familiarization with individual instruments to grasp the rhythmic sound. A skipping beat in Mariachi music is, making the accent fall in a syncopated beat. Syncopated is also known as a rhythmic beat that is displaced. In this case, a displaced beat created a glitch within the movement to emphasize the strumming of the bass line. A glitch that could be seen as a reverberation in the existing action quality.

Participants embarked on a journey of self-awareness, understanding time signatures across various musical genres. After choreographing solos to "El Son de La Negra", participants repeated their phrases to pop, alternative, electronic, classical, and hip-hop music. Different genres evoked distinct emotions and effort levels in their movements. Some dancers voiced challenges in maintaining the time signature while exploring the quality of their movement through an emotive response to the audio stimuli.

Dancers responded to the musical stimulus by accentuating temporal changes. Diverse music genres, with varying tempos, allowed dancers to elongate movements or develop dynamic tendencies. This approach broadened the spectrum of musical stimuli, minimizing constraints in improvisation thinking. Executing structured choreography to diverse genres allowed the researcher to examine how music genres influenced dancers' dynamics. This

was placed in juxtaposition to how their quality of movement manifested through Mariachi music.

The methodology aimed to exercise the auditory sense and explore how counting affects rhythm within practice-based research. It was observed that movement dynamics shifted slightly based on music styles, with fluidity and accents emerging in previously overlooked moments. Familiarity with a song deepened the understanding of the rhythm and flow in movement execution. This methodology maintained consistent movement, but the liminal space between movements was influenced, and movement intention was altered based on an emotive response to audio stimuli.

E5. Results of in-studio practice

This section delves into the outcomes of the in-studio practice phase, encompassing an analysis of data collection methods, challenges faced during the rehearsal process, and reflections on the applied methodologies. The primary objective of this practical research phase was to investigate how the phenomenology of perception evolves over time within dancers improvising to Mariachi music, particularly focusing on the intentional influence of musicality on dancers' perception of the culturally embodied heritage.

To gather data from participants, a comprehensive approach was employed. Two questionnaires were administered, capturing reflections both at the beginning and after the culmination of the performance (Refer to Appendix H: Part 1 and 2). Reflections from participants were subsequently analysed, complemented by video and voice recordings of rehearsals, discussions, and the final performance. These recordings proved essential to documenting and analysing the data authentically. As mentioned previously, participants' consent was obtained through waivers and releases for audio-visual documentation.

The results of this study illuminated the impact and implications of introducing rhythmically structured scores on participants' improvisational dynamics. These structured scores, deeply rooted in the rhythmic essence of Mariachi music, served as a foundational basis for choreographic performances that embodied a palpable aesthetic resonance. Emotionally, participants' responses indicated how the intentional infusion of methods influenced the nuanced dynamics in their movements.

Engaging in the in-studio practice phase empowered the participants to grasp the rhythmic intricacies of Mariachi music, enhancing their real-time auditory perception while engaging with movement. Each dancer's unique background and training shaped their distinct responses to musical elements, ultimately moulding their perception of movement

and sound into a multifaceted response. This holistic engagement corresponds to Alva Noë's notion of "Action in Perception," where sensorimotor knowledge contributes to the formulation of perceptual content.

While participants found great enjoyment in collaborative improvisational tasks with musicians, the presence of live rehearsals with musicians posed challenges. Issues emerged, including difficulties in audibly comprehending directional cues and achieving unity when musicians rehearsed the musical accompaniment. Challenges arose due to the limited musician participation, resulting in repeated instructions from the researcher. This marked the first attempt at synchronizing musicians and dancers, bringing unforeseen challenges.

The decision to merge dancers and musicians during rehearsal stemmed from logistical considerations, though this choice came with limitations. Lacking incentives or remuneration hindered consistent participation, as participants' availability fluctuated. Communication gaps and minimal attendance made scheduling extra rehearsals a challenge, leading to a constrained timeline. Originally intended as a 40-minute performance showcasing the influence of methodologies on musicality, external factors led to a 10-minute performance duration. This outcome prompted the creation of a longer ethnographic documentary PowerPoint as part of the investigative report.

Reflecting on the in-studio practice phase, it is evident that the approach was shaped by Western theoretical practices and a phenomenological lens. For future research, a more inclusive approach encompassing various perspectives is recommended. Insights gained from learning abilities, directional cues, and movement description language underscore the value of incorporating diverse perspectives. To streamline rehearsal processes, a segmented approach may be explored, allowing integration before introducing new elements.

CHAPTER 6

The Performance

F. Choreographing the In-studio practice

Amid the challenges encountered during the in-studio practice, the employed methodologies exhibited efficacy in shaping the creative trajectory leading to the subsequent stage presentation. The performance itself unfolded as a multidimensional artistic experience, weaving together visual and auditory elements to immerse the audience deep within the heart of the dance's narrative. This encompassing experience entailed both a video presentation and a live dance performance.

The performance took centre stage at the Laban Theatre in London, England. Audience members were ushered into the space via the side entrance of the theatre and directed towards the centre of the stage, where they stood to observe the projectors. Notably, both the audience and the performance were situated on the stage itself. This was due to the placement of the projectors and the easiest way to bring in the audience without hindering a fire exit.

The visual projection was orchestrated through three strategically positioned projectors placed around the stage's perimeter. The placement of the projectors was chosen by the researcher as a form of encapsulating the audience in an intimate and closed space. This allowed the audience to enjoy the show from a personal and eye-level point of view. Allowing the audience to feel the energy of the dancers and hear the music clearly and closely.

F1. The Commencement of the Show

The creative output was initiated with a crafted 20-minute video narrative. This narrative charted a chronological trajectory, unfurling the intricate embroidery of music and dance's cultural impact from the 13th century to the 21st century. This visual journey was then accompanied by a concise 2-minute video, delving into the rationale and significance underpinning this research endeavour. The choice of employing animated PowerPoints to convey the ethnographic perspective encapsulated the weight and resonance of Mariachi music and ballet folklorico's cultural heritage across historical epochs.

Through video editing and strategic placement, the audience was led through an exploration of the historical impact and the intricacies of the dance narrative within the context of colonization in México. This video narrative was essential, not merely as a historical backdrop, but as a foundational wellspring, aligning the audience with the project's genesis and intention. For many in the audience, this immersive experience presented an unseen facet of history, offering a fresh lens through which to perceive the influence of dance and music.

Transitioning from historical exploration, the performance metamorphosed into a seated dance presentation intertwined with the rhythmical attributes emblematic of Mariachi music. To optimize audience visibility, seating was arranged in an L-shape configuration thoughtfully positioned before the projectors. Those not seated could comfortably stand behind, ensuring every observer had an unobstructed view (Refer to Appendix I). This seating arrangement was chosen to enhance the dancer's space on stage and provide various perspectives to the audience's point of view. This idea was a touch on the

phenomenological perspective of spatiality spoken about before but is now being introduced through the audience's standpoints.

A strategic choice was made to position the musicians behind a translucent black gauze symbolising the contrast of music and dance. The sheerness of the fabric enveloped the bleed of connection between music and dance. This astute decision enabled the audience to visually perceive the melding of these two integral elements. The musical accompaniment was curated to embody the cultural sound score and was executed by a trio of musicians – a clarinettist, a violinist, and a bass player. While not a completed Mariachi band, they carried the harmony, melody, and vibrancy that underpinned the entire performance.

Evoking emotions and conveying cultural narratives, the dance sequences were choreographed to three iconic songs: El son de "La Negra" by Silvestre Vargas (arranged by Jeff Nevin), "El Niño" performed by Mariachi Vargas de Tecalitlán, and "El Jarabe Tapatío" (The Mexican Hat Dance) by Jesús González Rubio. Each dance piece embodied a distinct rhythmical attribute important to the core exploration of the research.

F2. El Son de La Negra

The performance commenced with "El Son de La Negra," a composition in a 3/4-time signature. This choice is noteworthy as the subsequent two songs demonstrated unique rhythmical attributes amongst the participants' movements. "El Son de La Negra" is renowned as a quintessential *son jalisciense*, originating in Jalisco, México. Its historical origins are still being sought, but its impact on urban Mariachi culture, canonizing this music through urbanization and the media growth in México, is undeniably significant (Hutchinson, 2003, p.37).

Choreographically, the movement integrated the methodologies of the structured movement score with the rhythmical pattern of the song. The researcher also integrated stylized contemporary movements, mirroring the sound score. These movements were filtered through the participants' action solos, which were further used to create duets involving multiple partners. This embodied improvised structured score interacted harmoniously with ballet folklorico footwork, embellishing el zapateado. The methodologies were interwoven with spatial patterns and lighting cues, demarcating shifts in sections and movement qualities.

The selection of lighting design was tailored to synchronize with the musical cues ingrained within the score. This coordination between visual and auditory elements served to create an immersive and evocative rendition of the sound score. Throughout the technical

rehearsal process, the lighting choices evolved through a collaborative dialogue involving the production team. Each choice bore the artistic intent, designed not only to illuminate the performance space but also to direct the audience's gaze towards specific focal points within the dancers' spatial domain.

In a deliberate effort to accentuate the dancers' choreographic pathways and patterns, angular lines and geometric boxes were employed within the lighting design. These visual features added an extra layer of dynamism to the performance, to create a harmonious interchange between movement and illumination.

The choice of vibrant colours within the lighting design was inspired by the hues of the Mexican flag –red, green, and white. This visual motif was thoughtfully mirrored in the participants' attire, as they all wore black tops paired with a variety of vibrant, athletic trousers. This sartorial choice was driven by the desire to foster an aesthetic that resonated with the spirit of improvisation and practice-based research. Emphasizing comfort and usability, the athleisure costumes bridged the divide between the in-studio practice and the stage, embodying the fusion of artistic expression and pragmatic functionality.

While the attire of the musicians displayed a degree of individual variation, their costume choices were imbued with distinctive symbolism. They were invited to select coloured shirts, each reflecting their personal preferences and serving as a means of individual expression while radiating an aura of liveliness, to match the sound score. To complete their ensemble, each musician adorned a sombrero, a garment laden with cultural significance. The sombrero stands as a symbol of the diffusion and popularization of Mexican culture, illustrating how the connotation of attire evolves within its contextual framework. This choice of cultural meaning added an additional layer of depth to the performance, serving as a reminder of the intricacies of cultural appropriation and the transformative power of symbols.

The performance incorporated another layer of cultural significance with the skirt worn by the participants. As previously discussed, this skirt held profound embodied significance, becoming a vehicle for performative expression within the dance. The incorporation of this attire not only served as a nod to tradition but also contributed to the inclusion of cultural expression woven into the performance.

A participant was selected to explore the intricacies of the skirt, performing an improvised solo, two duets, and choreographed movements. The skirt itself offered a visual representation of cultural heritage, as the artist authentically embodied their Mexican descent. This connection imbued the performance with a profound sense of joy and authenticity. The participant was instructed to keep the skirt on throughout the piece, enabling exploration of movement qualities in contrast to not wearing the skirt.

As the lights illuminated the stage, the musicians initiated the sound score, introducing the dancers to a change in rhythm. This shift triggered a hip-swaying motion, with the pelvis moving in a pull-and-push manner away from the centre. This motion was introduced to establish a dynamic entry into the dancers' action solos, each influenced by Laban's action qualities. This was followed by a participant embarking on a rhythmic exploration of the skirt, gradually joined by others in an ensemble display. This ensemble work termed the "action group" section, involved the participants employing the Laban action qualities investigated by the researcher, creating a uniform group dynamic.

After the ensemble sequence concluded, the movement transitioned into an improvisation characterized by a flowing, floating rhythm. This float improv led the dancers into a diagonal line, eventually culminating in the use of el zapateado as some dancers exited the stage, leaving two participants poised for a duet. This duet was curated by intertwining their action solos, uncovering moments of initiation, manipulation, and guidance within proximity while preserving the essence of their individual movements.

Upon the duet's conclusion, the participants returned to the stage, engaging in a movement motif developed by the participants, intricately aligned with the melody. This motif, known as the isolatory rhythmic duet, emerged from a collaborative effort between two participants. The motif's repetition accentuated its significance in this section. Subsequently, a transition ensued, guiding participants through a trance-like progression from the upbeat chorus to an undulating and circular verse. The movement mirrored the accordion-like sound, achieved through an improvisational approach focused on openness and closure.

Three dancers departed from the wave-like movement pattern, initiating a free-form contact improvisation that eloquently echoed the bass line. Meanwhile, the participant with a skirt defined the spatial boundaries for a resulting duet. This duet, distinct from the previous one, featured one participant remaining at the perimeter while engaging in a duet without physical contact. This juxtaposition highlighted the trio in the back corner.

With the rhythmic shift came a change in pace, as participants evoked the cultural essence of the dance by incorporating the rhythmic footwork of the caretilla. This rhythmic stomping was complemented by an upper-body undulation. The footwork was primarily attuned to the bass rhythm, emphasizing its strumming. The upper body movement was a deliberate choice, inviting a comparative exploration of tonality between the clarinet and violin. The footwork served as a means of spatial coagulation, bringing participants together into a central circle.

The following sequence involved participants executing a choreographic sequence facilitated by the researcher. The movement harmonized with the trumpet's vibrations,

resonating with the chorus melody. The isolatory rhythmic duet motif resurfaced, embodying the musicality of the moment. This rhythmic shift within the music marked the transition to the proceeding section.

While some participants shifted spatially upstage, the former duet partners united, reimagining their solos as a duet from a fresh perspective. The central stage duet emulated the layout of the opening duet. Participants navigated through their action solos, guided by the researcher's interactive approach aimed at knitting their solos. This duet was driven by responsiveness and mutual influence, weaving movement through space and time.

As the duet concluded, the lighting revealed a trio formation placed in front of the gauze. The duet participants embarked on a gestural phrase while weaving into the formation behind them. This gestural phrase was developed in harmony with the rhythmic cadence of the instrumentation. Each note's accent was methodically emphasized, illuminating the choreographer's intention. As the tempo escalated, the gesture was repeated and intensified, extending into leg movement. This movement extended beyond the stage, with a heel-toe motion of the foot adding an extra layer of difficulty and expression.

To bring the first song to a conclusion, the participant with the skirt concluded their improvisational exploration with a dynamic embellishment of circular and swinging movements. As the clarinet brought the performance to its end, the participant was ushered offstage, the motion mirroring a finale. In its entirety, this piece embodied the cultural heritage inherent in the movement, capturing the fusion of contemporary expression and ballet folklorico's distinct footwork.

F3. Instrumental Improvisational Interlude

In an interplay of improvisation's intrinsic dynamics and its emotive resonance, the choreographer interwove this transformative facet into the next segment. Within this choreographed journey, each participant adopted a distinct musical instrument, setting the stage for their individual improvisational responses. Progressing spatially from stage left to stage right, this deliberate trajectory served as a visual metaphor, accentuating the cyclical nature of beginnings and endings.

This sequence not only afforded the dancers the canvas to infuse their distinctive habitual patterns but also facilitated their synchronization with the rhythmic tapestry woven by the musical accompaniment. The musicians themselves embarked on a parallel improvisatory journey, encouraged to traverse the borders of rhythm's horizons. The dancers' movement was guided by attentive listening, a conduit through which they were

informed of their intricate choreography. The dancers were instructed to embody their movement with a "musically visual" essence, thus creating an interplay of sound and motion that resonated.

F4. El Niño Perdido

Upon the trio of improvisational dancers exiting the stage, the stage was set for the commencement of the next musical piece. "El Niño Perdido," a composition brimming with dynamism, encapsulating a 4/4-time signature replete with elaborate pace and tonal shifts. The compositional uniqueness lies in its repetitive structure, employing the same musical score threefold. This distinctive repetition was harnessed as a creative springboard, unlocking three distinct pathways for exploration within the same musical framework. Choreographed as a duet, this segment invited two participants to embark on an expressive journey, navigating the space with the ballet folklorico skirt.

As the musicians brought their improvisational interlude to a close, a participant emerged, reprising the final four bars of "El Son de la Negra." This sublet echoing paved the way for the dancer to synchronize with the rhythmic cadences of the song's opening verse. A spotlight was cast on accentuating the gliding motions and circularity inherent in these repeated bars, culminating in a transformative shift of sound and movement, ushering the participant into a new thematic segment of the music.

Guided by the musical evolution, the dancer traversed the stage to its upstage right corner, enshrouding their head, an act of transition. The subsequent unveiling of the face through the fluid torso movement marked the shift in tempo. As the musical modulation shifted into a slower 3/4-time signature, the dancer seized the opportunity for sustained movement, infusing it with the resonant strumming bass line.

The choice of the bass line as the anchor was deliberate; its deep tonality harmonized with the dancer's incorporation of shoulder accents and traces of arm twists. These undulating movements reverberated through the skirt, extending the motion to mirror the harmonious ripples resonating through the composition. The dancer's movements were guided by the interplay of the skirt and a keen attunement to the designated instrument. During the rehearsal process, the choreographer amplified the instrument through a pre-recorded soundtrack.

Mirroring the bass line's pace, tone, and resonance, the dancer wove a narrative of motion that culminated with an exit mirroring their entrance – a gesture of cyclic continuity.

The baton of movement was then passed to the next participant, heralding the introduction of "El Niño Perdido."

This dancer was tasked with embodying visually the tune's essence, with a particular emphasis on the violin and clarinet melodies. This segment was defined by a self-exploratory dynamic, granting the dancer a realm of interpretive freedom. This freedom, underpinned by the dancer's Columbian heritage, allowed for a unique personal narrative to be woven into the movement, adding an additional layer of depth.

This participant's incorporation of personal narrative introduced an element of Latin culture, deftly intertwined with the rhythmic sound score. The ensuing movement was a symphony of sustained and whipping motions, each mirroring the score's elaborate fluctuations. Through skilled execution, the dancer evoked a tangible connection to the music, melding it with contemporary and ballet folklorico influences.

With their solo exploration reaching its crescendo, the participant reintroduced the gliding and accentuated movements, reminiscent of the previous solo's introduction. A repetition of this motif followed, performed in tandem with the previous soloist, concluding in a swirl that transitioned into a participant's interaction with the skirt. As the skirt departed the stage, the previous participant remained, immersed in the guest for connection.

This sequence aimed to illuminate diverse pathways of musical exploration. These pathways were revealed through the exchange of instructions among participants. One dancer, left onstage, embarked on an expedition marked by the sustained and floating qualities of the clarinet and violin. Soon after, another participant joined the improvisational exchange, embodying the bass line's essence.

With emphasis from a lighting change into a blue flush across the stage, the participant merged into the improvisational interaction, and the focus shifted towards the embodiment of the bass line. Drawing from their background in hip-hop, the participant's movements resonated with the rhythm, infusing popping, and locking techniques while accentuating the melodic strumming. This visual juxtaposition, represented by the other dancer's angelic, fairy-like movements, provided a contrasting visual representation of sound interpretation and the structured score of improvisation.

And with this, the theme of the full circle was reignited, coming full circle in the final strains of this song. The duet concluded with the recurring gliding motif, highlighted by footwork, and interrupted by a spirited yell of "hey" from the participants. This vocal exclamation, or "grito," a hallmark of Mariachi music, served as a joyful conclusion, infusing the performance with a palpable sense of cultural heritage, encapsulating the synthesis of movement and music. The ironic use of the *grito* was a way of embracing the performative

aspect of Mariachi culture and the expressive use of the voice. This allowed the participants an input of cultural signification in affording them a space to explore their vocal projection.

The performance concludes with a transition as the dancers exit the stage, and the lights fade into darkness. In this moment of theatrical stillness, the researcher effortlessly transforms from observer to active participant, stepping into the exploration of "El Jarabe Tapatío," an iconic composition famously known as the Mexican hat dance. The selection of this song carries profound significance, rooted in its historical role as a unifying anthem for a country marked by diverse perspectives. Additionally, it serves as a canvas to unravel the elaborate layers of Mexican culture, shaped by the relationship between indigenous roots and the imprint of colonization – a fusion that crystallized into a prominent social-national identity.

F5. El Jarabe Tapatío

The solo movement that unfolds is a product of a fusion between standardized ballet folklorico footwork and contemporary choreography. Guided by an instructional video from the Ballet Folklorico de Los Angeles, the researcher weaves authenticity into the dance. A remarkable touchstone validating the accuracy of the choreography comes from Josephina LaValle's national choreographic score, allowing for a particular comparison and refinement of cues.

A historical thread interweaves the narrative: in 1921, the renowned Russian ballerina Anna Pavlova performed the "Jarabe Tapatío" on pointe during her tour of México. This historical juncture prompted the researcher's creative curiosity, resulting in a reimagining of the dance through a contemporary lens – akin to Pavlova's transformative influence on classical ballet. Back then, this dance was a critical cultural force that echoed through México's artistic landscape. Pavlova's cross-continental performance ignited a spark, promoting an alliance between art and politics as dance evolved into a potent instrument for national unity. (Lavalle et.al., 1988)

Concurrently, the selection of lighting schemes and costume refinements was aligned with the preceding facets of the performance. Given the time constraints inherent in the technical rehearsal phase, the lighting choices were intentionally minimalistic, albeit purposeful. These lighting decisions were executed to accentuate the spatial dimensions of the performance area, creating an ambience that enhanced the experience for the audience.

One lighting cue was strategically timed for maximum impact. This cue came to life during the latter stages of the performance, precisely when a participant engaged in a captivating embellishment of their costume. The interaction of lighting and costume at this juncture served as a visual focal point, to draw the audience's attention to the climactic moment, to amplify the overall narrative and sensory impact of the performance.

An intentional choice surfaces as the researcher undertakes this choreographic journey barefoot, bridging contemporary dance elements with folk-style movement. This fusion becomes a visual narrative of cultural amalgamation, etched with personal significance. The rhythm's cadence unfolds in a binary sequence – when patterns repeat, movement blossoms into embellishments. These artistic flourishes are manifest in the imaginative transposition of ideas across limbs, dynamic amplifications, and the rhythmic echo of arm motions.

The choreography builds towards a climactic build-up in tandem with the music, prompting a deliberate exploration of additional cultural elements from Mexican culture. In a deliberate creative choice, the researcher decided to incorporate a sombrero into her already culturally significant costume. This addition of the sombrero introduced a compelling dynamic characterized by angular movements, rapid-fire footwork, jumping and nimble gestures, heightening the choreographic contrast often associated with the ballet folklorico's popularization.

Historically, sombreros had been predominantly worn by male-presenting individuals in traditional dances like the Jarabe Tapatío. The fusion of garments in this performance dismantled gender stereotypes associated with attire. This decision served to underscore the notion that cultural significance is inherently subjective, emphasizing a critical step in decolonizing preconceived gendered notions surrounding attire within the context of a performative production.

The incorporation of the sombrero and skirt into the performance was intrinsically tied to the authentic essence of the Jarabe Tapatío, adding a layer of complexity and cultural depth to the dance. This choice prompted an in-depth examination of the choreographic movements and embellishments intrinsic to the traditional steps and quality of the Jarabe Tapatío. Through this analysis, the research sought not only to elevate the performance but also to conceptually decolonize it within a theoretical framework. This process was aimed at deconstructing established paradigms, emphasizing the rich and multifaceted nature of cultural expression.

The choreography is a harmonious partnership with the music's nuances and fluctuations in tone, pitch, and dynamics. While the music's tempo escalates, mirroring its crescendo, the movement intensifies, mirroring the auditory tapestry. The challenge of integrating live musicians provided the performance with an authentic dimension, despite the

hurdles in rehearsals due to their limited availability. This dynamic contributed an unexpected layer, yielding diverse dynamics in movement that resonated with the live musical rendition.

Acknowledging that improvement is a perpetual venture, the researcher concedes the fluidity of the process. The collaborative interaction with live musicians – a challenge willingly embraced – sculpted a distinctive rendition of the performance. This symbiotic relationship between movement and music supplemented the authenticity of the experience, rendering it distinct from any alternative approach. The culmination is a harmonious symphony, visually action-packed, emotionally reminiscent, and a homage to the seamless marriage of movement and music – a journey both transformative and alluring for the participants.

F6. Reflections of the Performance

The performative output resonated powerfully, kindling an awareness of colonization's profound impact on the musical and dance landscapes of México. This immersive experience was fundamentally driven by the movement-based investigations discussed in the previous methodologies section. The methodologies were written and memorized as subsections or parts that made up the whole song.

A tool for symbolization was the notated choreography on music sheets. This notation fostered a complex interchange between dancers and musicians, resulting in synchronization. The researcher developed a form of scoring the music sheet that allowed for choreographic cues and a harmonious interweaving of movement and music, a testament to the impact of rhythmicality on dance. The scoring included descriptive words that pertained to the movement language developed, like "action solos, _&_ duet, open & close improv." This allowed for fluid transitions and memorization of the trajectory of dance (Refer to Appendix J, K, and L).

In its inception, the projectors were poised to play sequentially, factoring in potential for latecomers. The second projector was intended to commence 10 minutes into the first projected video, providing a reiteration of the same content. However, this concept encountered technical hurdles during the live performance, leading to challenges. Likewise, certain anticipated lighting cues remained absent from the final production, underscoring the complexity of aligning technical elements.

One challenge encountered at the live performance was the fact that people only had one view and people were overlapping each other obstructing the view of the audience members in the back. The researcher acknowledges that the videos should have been

presented in a different manner. All the projectors should have begun at the same time, allowing the audience to see the projection in various perspectives. Following the conclusion of all the videos, once everyone has found a seat, the projector not obstructed by the chairs should play the final video.

The choreographer's self-taught animation background introduced unforeseen challenges, and an early seating directive inadvertently led to audience confusion. A result of the videos not being tested to their entirety before the show, which was a mistake. In addition, this lapse created a misalignment between video projection timing and the audience's seating arrangement. These issues, along with the compressed production timeline, hindered the creation of comprehensive footage and the synchronization of lighting cues with dance musical elements.

Amidst these challenges, the performance stood as a testament to the successful application of the outlined methodologies. Reflecting upon this endeavour, it becomes evident that the insights obtained extend beyond the immediate scope. The experience underscores the vital importance of an inclusive perspective that embraces the multiplicity of viewpoints. While certain limitations, notably in the coordination of musicians and dancers, emerged, forthcoming ventures stand to benefit from enhanced communication and incentivization, thereby achieving a more harmonious fusion.

Furthermore, this experience prompts contemplation on the potential for a heightened level of cohesion and immersion in future performances. By harnessing the lessons learned, upcoming projects can harmonize integration and performance stages to a greater degree. This refinement holds the potential of elevating the impact of cohesiveness of forthcoming creative endeavours.

The audience's response to the information and the generated movements was one of joy and happiness. Equally, the participants shared their reflections, expressing feelings of joy, a sense of community, and a profound connection to the music. They highlighted the freedom they felt within their movements and the accuracy and conviction with which they embodied the traditional sense. These reflections serve as reminders that this work transcends theoretical and conceptual frameworks, infusing dancers, and musicians with a sense of purpose greater than themselves. Their contributions and execution of the movements have nurtured individual pride, movement integrity during performances, and the ability to transcend constraints through improvisation.

Movement engages not only the physical but also the mental and emotional aspects of a dancer, while music has been a vital force in various facets of human life and

experience. This research lives through action, manifesting perceptions and intentions through movement and the deliberate selection of music that amplifies these ideas.

CHAPTER 7

Conclusion

G. Findings of the Project

This project has illuminated the cultural dimensions of rhythm and the potential of sound nuances, including dynamics, tones, pitches, volumes, and tempos, to act as perceptual triggers. Throughout this journey, participants have unveiled the transformative capacity of these sonic elements, culminating in the creation of a unique auditory architecture within the human body.

The development of a culturally significant creative methodology, which forms the foundation of this theoretical and practical framework for perception through action, has yielded positive results for movement dynamics in improvisation. It's important to note that the individuality of each participant played a key role in this work. This approach is highly specific to this group, and it would likely yield different results with a different cohort. However, this variability among participants allowed for a rich exploration of intention and artistic integrity in the realm of corporeal expression.

The methodologies encompassed various components, including audio stimuli, movement generation tools, and embodied cultural rhythmic practices, all of which contributed to the creation of a shared movement language. While Mariachi music was a personal choice for this research, it emerged as a suitable indicator of emotive responses during improvisation. The affordance of emotion through the sound score evoked distinct perceptible movements that could be adapted to various music genres.

Participant responses to the development of the movement language varied. Some found the descriptions of idea generation somewhat vague, leading to a wide range of perceptual flows and movement interpretations. This variability, although occasionally challenging, allowed for a more comprehensive exploration of movement possibilities, even if it sometimes led to moments of uncertainty and confusion.

G1. Significance of the Project

Through the structured sound score of various regional Mariachi sounds, this project has achieved significant milestones. It was tailored to develop a studio practice capable of analysing and enriching a dancer's perception of musicality during improvisation. By delving into ontological, philosophical, and neural aspects of consciousness, this research has established a profound connection between music and dance.

This proposed integration of dance into the academic spectrum promises a deeper understanding of a dancer's perceptual adaptability during improvisation. It not only enhances the creative potential of dancers but also contributes to the broader discourse on the relationship between music and movement. This research invites others to explore the intricate interplay between the auditory and kinaesthetic domains, ultimately advancing the comprehension of how humans engage with rhythm and embodiment.

G2. Contributions and Future Endeavours

The contributions made by this project primarily lie in the methodologies developed. The detailed insight into the creative process behind the theorization and conceptualization of a choreographic piece can serve as a valuable blueprint for future performance endeavours. These choreographic methodologies are intended to be accessible to anyone interested in enhancing their musicality, particularly through improvisation.

Furthermore, the theoretical framework established here seeks to build upon existing research in the realm of phenomenology, offering a unique cultural perspective. By challenging and transcending the limitations and stereotypes imposed by historical colonizers, this research strives to provide a more inclusive and diverse understanding of phenomenology in the context of artistic expression.

Importantly, the exploration conducted in this study can serve as a model for investigating other genres of music. The in-studio practice developed here can be adapted and translated into various forms of artistic expression, offering a versatile tool for fostering artistic integrity, intentionality, and cultural awareness within a movement-based practice. This choreographic structure is not limited to one genre of music, the findings of this project would have been vastly different had there been a variety of music genres and techniques explored.

Lastly, the choreographic notation provided on the musical sheets is a crucial organizational aspect of this research. The researcher intends to further develop their understanding of music theory to facilitate clearer descriptions, notations, and instructions when utilizing audio stimuli in future performances.

G3. Personal Reflection

Further reading, exploration of corporeality, and deeper inclusion of participant inquiry could propel this research on a level beyond the scope of this thesis. Throughout this journey, my intention was to create a framework with the individual participants in mind, and I actively encouraged their influence in shaping the methodologies. Open communication was a valuable asset in understanding the participants and aligning the research goals with their aspirations in movement and artistic expression. Upholding the importance of individuality and the diverse thought processes behind artistic expression was paramount in my approach. This commitment to ethical consideration, participant contributions, and emotional perspectives throughout the project was central to my research ethos.

Based on the reflective analysis of this research, this project has left a profound impact on my own heart and the hearts of the participants. This resonance stems from the deep integration of cultural significance and authenticity into the very fabric of the research, encapsulating in the rhythmic heartbeat of Mariachi music. Investigating a cultural sound so deeply rooted in heritage and tradition provided an exclusive sense of ownership, and the invitation for each participant to infuse their individuality allowed them to depart from this project with something truly special, a unique perspective that enriched the entire endeavour. The research hopes to educate future investigators on a journey of discovery through cultural expression, heritage, and artistic practices.

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Appendices

Appendix A: The Visual Projections Link of the Stage Performance

Part 1:

Visual Projections Finding the (Vibe)rations Part 1.mp4

Part 2:

Visual Projections_Finding the (Vibe)rations Part 2.mp4

Appendix B: The Project Consent Form

Finding the (Vibe)rations:

A phenomenological approach on perceptual corporeality and movement improvisation

Signature of researcher	
	Date:
I believe the participant is giving informed consent to	
Signature of research particip	Date:
Clarification and Illiornation.	Date
• _1 understand that I am free to contact any of the people invo- clarification and information.	orved in the research to seek further
• _I understand that I am free to contact any of the people invo	.
information I have provided at any time while it is in storage a	
_I understand that under freedom of information legalization	Lam antitled to access the
researcher's password-locked laptop until the exam board conf dissertation.	arms the results of their
• _I understand that signed consent forms and original video re	•
required to report with or without my permission.	paordings will be retained in the
may have to report this to the relevant authorities - they will di	iscuss uns with the first but may be
• I understand that if I inform the researcher that myself or so	•
choreographic content. • Lunderstand that if Linform the researcher that myself or so	amagna alga is at might of harmy there
• _I understand that extracts from my improvisations may be understand that extracts	ised in the dissertation and for
anonymous unless further reported to my researcher.	and in the discontation and for
• _I understand that in any report on the results of this research	i, my identity will not remain
• _I understand that all information I provide for this study wil	•
• _I agree to my rehearsals and performance being video recor	
• _I understand that I will not benefit directly from participating	•
space to dance.	
in a room under supervision, and listening to music and bringing	ng my creativity and body into a
• _I understand that participation involves showing up to reheat	
opportunity to ask questions about the study.	1.01
• _I have had the purpose and nature of the study explained to	me in writing and I have had the
after the interview, in which case the material will be deleted.	
• _I understand that I can withdraw permission to use data from	n my interview within two weeks
answer any question without any consequences of any kind.	
• _I understand that even if I agree to participate now, I can wi	thdraw at any time or refuse to
• _I voluntarily agree to 1	
Consent to take part in research.	
Consequent to talk a manual to manage and	

Alondra Galvan BFA Modern Dance, Alondra.g21@edu.trinitylaban.ac.uk

Appendix C: Rehearsal Footage – Structured Rhythmic Score

Part 1:

Structured Rhythmic Scores.mp4

Part 2:

Structured Rhythmic Scores Pt2.mp4

Appendix D: Rehearsal Footage – Working with the Skirt

Working with skirt.mp4

Appendix E: Rehearsal Footage – Learning El Zapateado

Learning the Zapateado.mp4

Appendix F: Rehearsal Footage – Laban's Action Qualities

Laban's Action Qualities.mp4

Appendix G: Rehearsal Footage – Time Signatures and Genres of Music

Time Signatures & Genres of Music.mp4

Appendix H: Participants Reflective Questionnaires

Part 1:

https://forms.office.com/e/9tXZA0PEyY

Part 2:

https://forms.office.com/e/WZcAA7P8cW

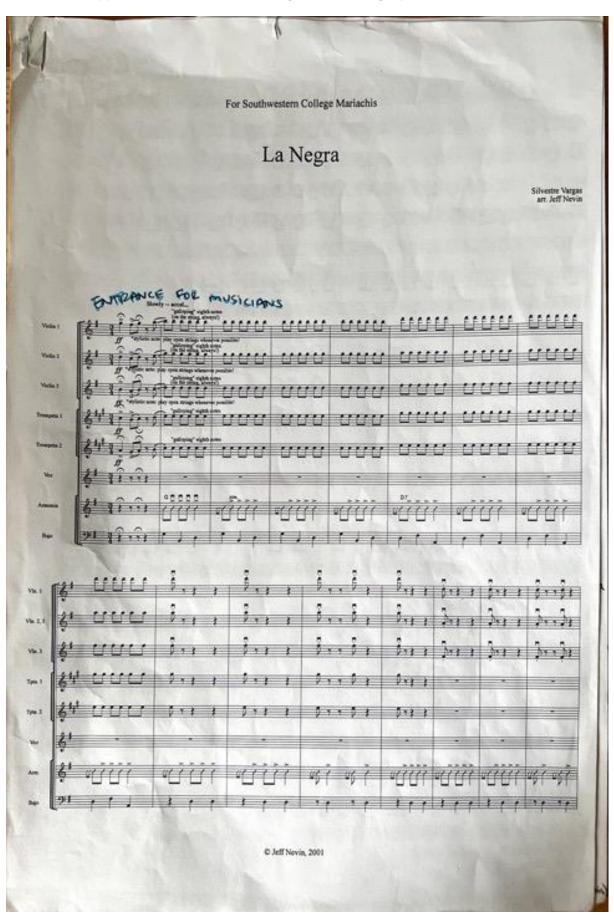
MUSICIANS

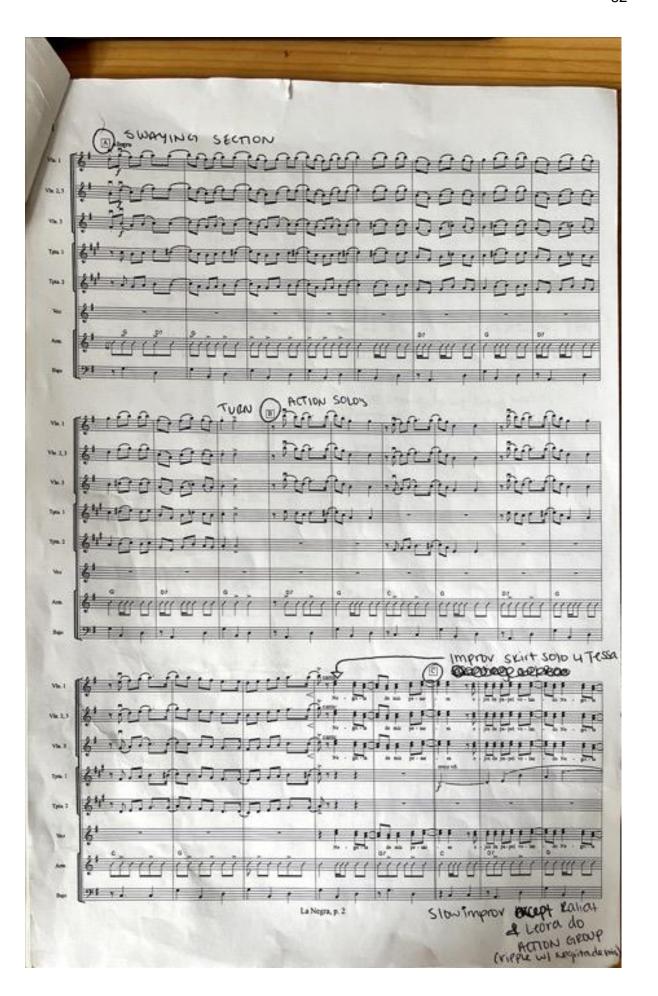
Will Company

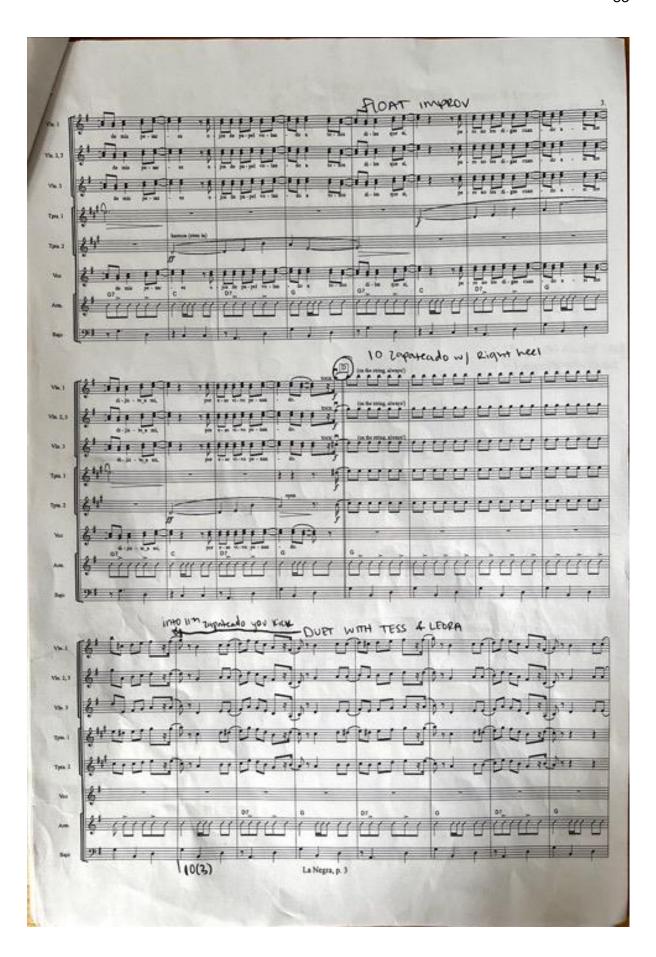
Will

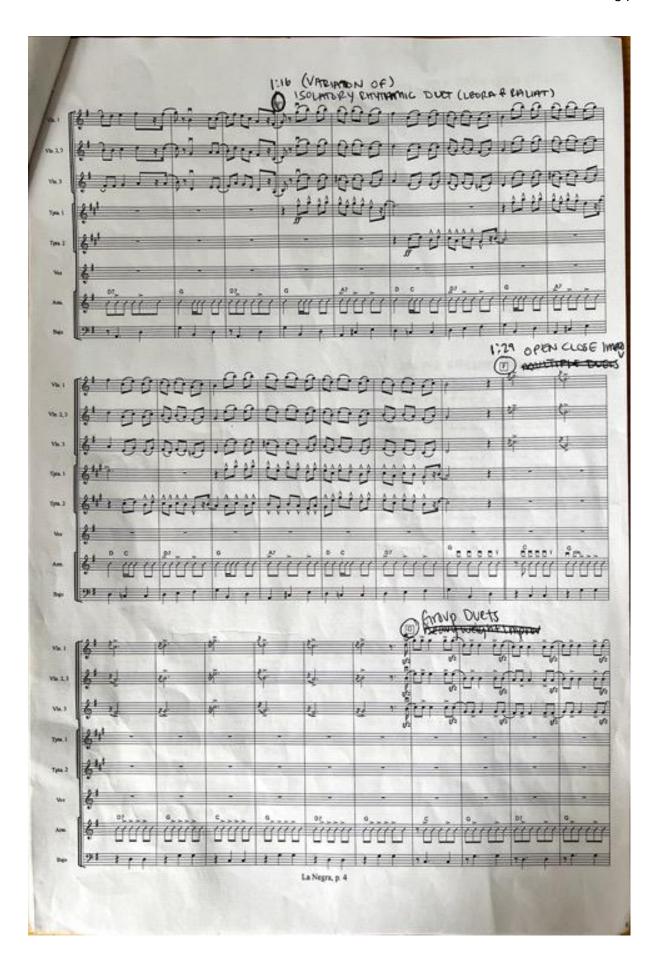
Appendix I: Spatial Format of Stage Presentation

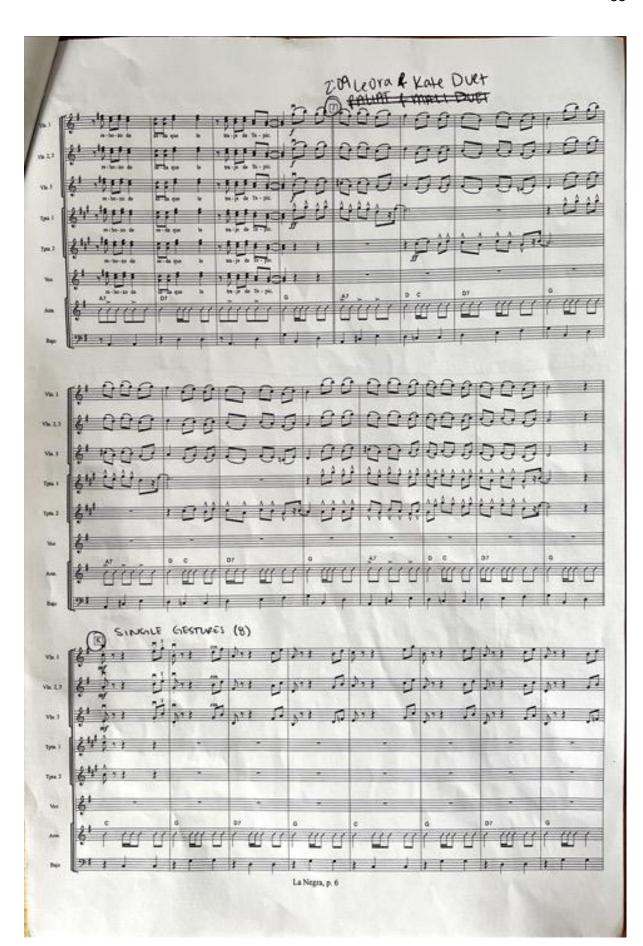
Appendix J: El Son de La Negra – Choreographic Music Sheets

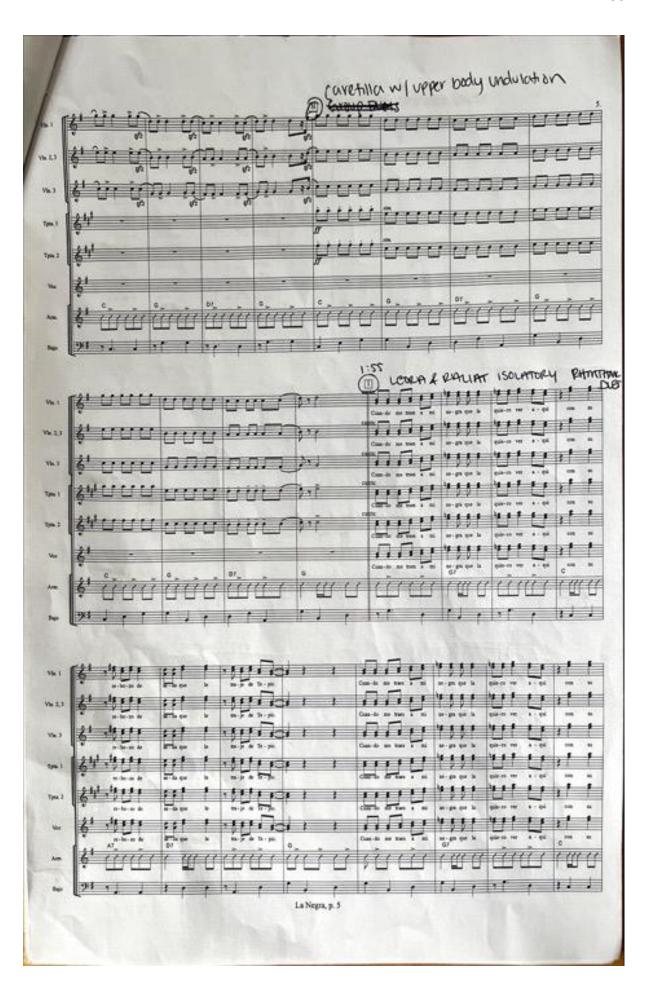


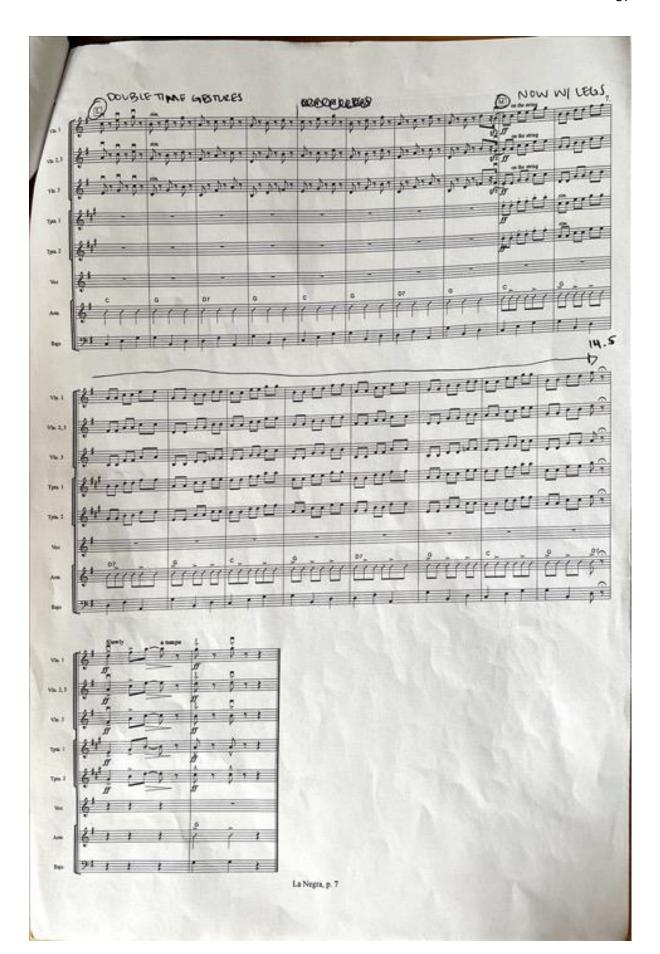


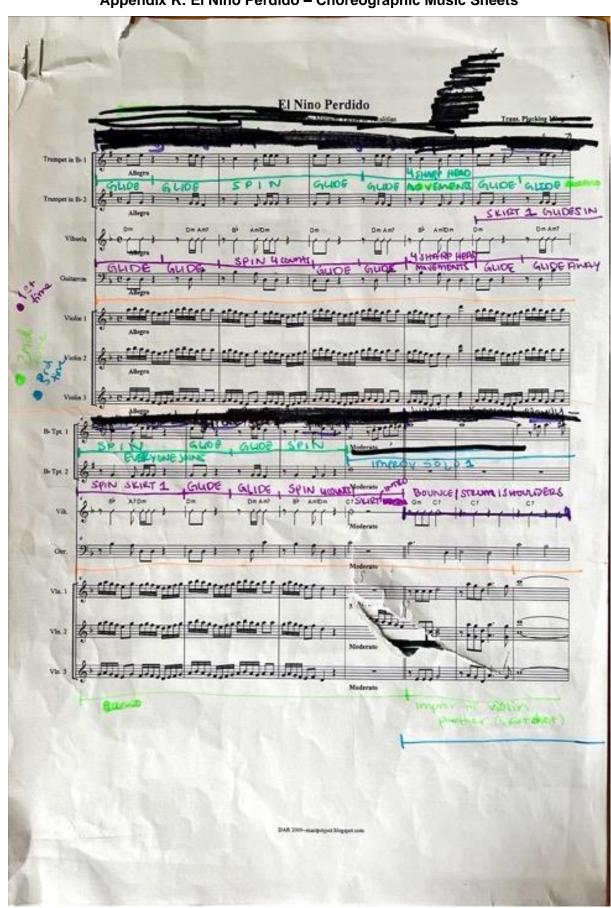






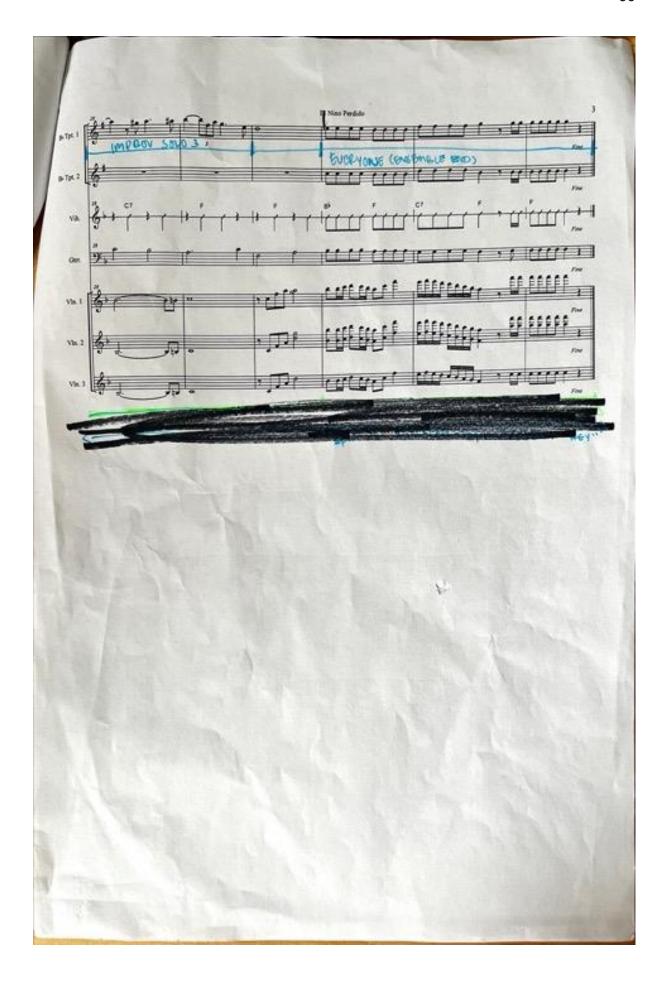


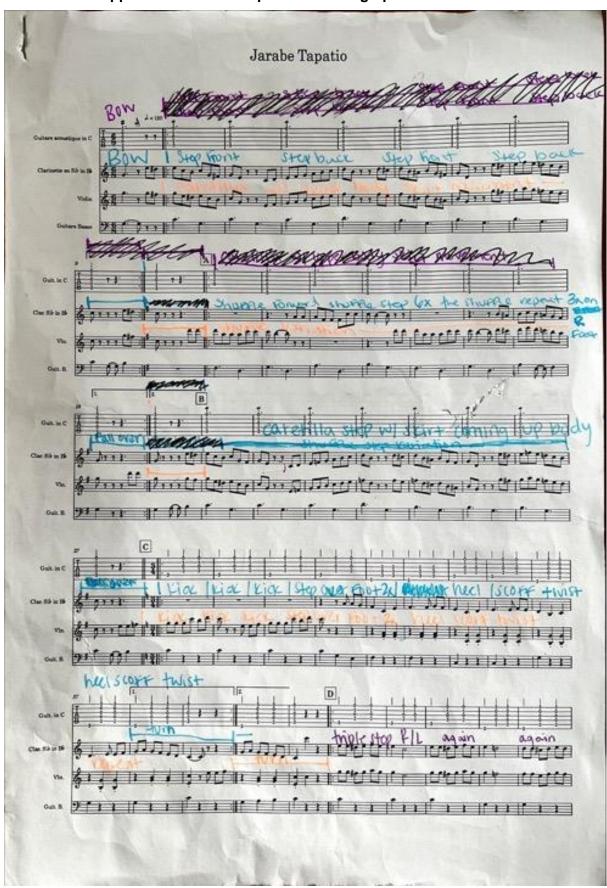




Appendix K: El Niño Perdido - Choreographic Music Sheets







Appendix L: Jarabe Tapatío - Choreographic Music Sheets

