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Creativity in the Choreographic Process

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MASTER OF FINE ARTS

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by

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# ABSTRACT OF THE THESIS

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Professor Lisa Naugle, Chair

In this thesis research, a framework for investigating creativity is established through existing literature in the field of psychology, interviews with practicing choreographers and the development of choreography for live theater. Creativity, types of creativity, and stages of creative problem solving are defined and a comparison between these definitions is identified in relation to phases of the choreographic process.

This research includes researcher observations and interviews with nine choreographers currently residing in the Southern California region. Through the interview process, information regarding their creative processes and methods for generating movement material and structuring movement into choreographies is collected and examined for greater understanding toward creativity and the choreographic process.

The research also includes a description of my own experience working with different methods to create four new dance works for a live audience. Through journals and reflections on my choreographic process, I begin to explore how different choreographic methods affect my perception of my own creativity and the outcome of each new work.

The focus of this thesis is to gain a greater understanding of how choreographers define and demonstrate creativity in the choreographic process.

# INTRODUCTION

American dance educator, Alma Hawkins, was a leader in establishing the nation's first autonomous dance department at the University of California, Los Angeles in 1962 (Alma;Thomas 98). For 17 years, Hawkins worked as a dance researcher, and movement therapist at the UCLA Neuropsychiatric Institute (Alma). In *Creating Through Dance*, Hawkins states, "Bringing a new dance into being is truly a creative act" (85) and describes stages and concepts relating to the choreographic process. Other dance scholars such as Scott DeLahunta, Gill Clarke, Larry Lavender, Susan Melrose, Anna Pakes,to name a few, have written about how choreographers "bring a new dance into being" and how their methods demonstrate creativity. Researchers in the field of psychology also contribute to definitions of creativity and provide constructs for identifying four types of creativity (Shalley et al.1-2). Due to the enormous amount of information in this area, the scope of this thesis is on two stages of the choreographic process; generation and structuring.

Dance scholar Jo Butterworth developed the Butterworth Model which includes 8 stages of the choreographic process (qtd. in Gavish and Stevens 42). The generation or "dance content" phase, occurs when a choreographer generates movement (whether on his or her own body or with a dancer) and develops a movement language (qtd. in Gavish and Stevens 42). The "structuring" phase occurs when a choreographer makes decisions about the overall layout of the piece (Gavish and Stevens 42) in space. Decisions made in the structuring stage include the order in which movement sections appear and the "length, shape, and intensity" of movement sections (Gavish and Stevens 42).

In the article, "Thinking Strategically about Dance Making", authors Maya Gavish and Catheirne Stevens state that research in the field of dance often focuses on analysis of the final

product or final structure of a dance work (43). Consequently, "not as much is known about the cognitive processes underlying the structuring process" (Gavish and Stevens 43). The purpose of this research is to fill that gap by discovering aspects of the structuring process as revealed by 9 choreographers In *Chapter 2: Methods*, I provide background information on the 9 choreographers participating in this research and describe how I collected information regarding their generation and structuring processes through participant observation methods and interviews.

In *Chapter 3: The Choreographic Project*, I discuss my process of generating and structuring movement for choreography. This process resulted in the creation of four new dance pieces. In this chapter I describe "Embodying the Method*"* and discuss rehearsal experiences and decision making throughout this process from a first-person point of view.

In *Chapter 4: Findings* and *Chapter 5: Discussion,* I relate findings from the interviews and rehearsal observations to topics discussed in *Chapter 1: Review of Literature.* This thesis project covers topics ranging from definitions of creativity, types of creativity, stages of creative process, generation of movement material, structuring of movement material, and choreographic methods.

# CHAPTER 1: REVIEW OF LITERATURE

### *What is Creativity?*

In the book, *Absolute Essentials of Creative Thinking and Problem Solving,* author Tony Proctor states that psychologist Max Wertheimer suggested, "...creative thinking involves breaking down and restructuring knowledge to gain new insights into its nature. Creativity is something which occurs when we are able to organize our thoughts in such a way that readily leads to a different and even better understanding of the situation we are considering." (2).

In 1926, twenty years prior to Wertheimer, English psychologist Graham Wallas described four stages an individual will go through when attempting to approach a problem with the objective of finding creative solutions (qtd. in Proctor 39). The four stages of Wallas' creative thinking process are preparation, incubation, illumination, and verification. In the preparation stage individuals gather necessary information related to the solution. In the incubation stage the individual takes a step away from the problem, allowing their mind to contemplate and work through that information. During the illumination stage, ideas and creative responses arise, and during verification, the individual demonstrates if the "illuminations" satisfy the problem (Wallas qtd. in Proctor 39-40).

Both Wertheimer and Wallas describe creativity as it pertains to the use of knowledge and information to create novel solutions. In the chapter, "Knowing Through Dance-Making*",* from the book, *Contemporary Choreography*, Anna Pakes argues that choreographers possess a certain, unique type of knowledge, referred to as a choreographer's epistemology (11-13). Epistemology is a philosophical term referring to the study of knowledge and the investigation of what distinguishes justified belief from opinion (Stroll and Martinich 1). The theory of epistemology in dance suggests the act of choreographing employs, develops and demonstrates

different kinds of knowledge, separate from being able to analyze or critique existing choreography (Pakes 12). Pakes theory that choreographers utilize a unique epistemology is consistent with Wertheimer and Wallas' notion that creativity and creative thinking require the use of existing knowledge. Therefore the act of choreographing demonstrates creative thinking in accordance with Wertheimer and Wallas' definitions.

In the chapter, "Expert-intuitive and Deliberative Processes'', from the book, *Contemporary Choreography*, author Susan Melrose explains that choreographers utilize "expert-intuitive" processes, which involve insights into the creative process that are, "previously informed by experience in decision-making in performance and choreography"(34). In this way, Melrose is referring to epistemology, and the way choreographers use their previously gained knowledge and experience to make decisions during the choreographic process. If this is true; how can we determine if a choreographer is using their knowledge to gain new insights and produce new ideas, versus repeating and recycling old information? If they are repeating old information, this would not demonstrate creativity because the process does produce new or novel ideas and solutions.

### *The Systems Model*

Mihalyi Csikszentmihalyi's "Systems Model of Creativity" states that, "creativity can be observed only in the interrelations of a system made up of three main parts"(Csikszentmihalyi 27). The three parts of the system are the domain, the field, and the individual (Csikszentmihalyi 27). The domain consists of a set of "symbolic rules and procedures" (Csikszentmihalyi 27). In the context of this research, the domain is modern and contemporary dance.

The second part of the system is the field. In Csikszentmihalyi's model, the field consists of individuals in a domain (Csikszentmihalyi 28). Based on the rules and procedures established

by the domain, the field passes judgment on whether or not new works of art in the domain deserve to be "recognized, preserved, or remembered" (Csikszentmihalyi 28). In the domain of modern and contemporary dance, the field includes but is not limited to; dancers, choreographers, dance educators, dance critics, dance scholars, administrators of foundations and institutions that deal with dance, and all individuals creating work that pertains to modern and contemporary dance. Essentially, any individual passing informed judgment on a dance work based on experience from within the domain of modern and contemporary dance, encompasses the field.

The third and final component of the Csikszentmihalyi's creative system is the individual person. Csikszentmihalyi states that a creative person is, "someone whose thoughts or actions change a domain, or establish a new domain" (Csikszentmihalyi 28). An example of a creative person in the domain of modern dance is German choreographer Mary Wigman. Emerging from the German modern dance movement of the 1920s, Mary Wigman, "worked more intently and had pushed her work further than did other dancers of her generation" (Manning). Wigman is classified as, "among the most important artists in Europe to free dance from false classicism, false romanticism, false naturalism, too great a subservience to external factors, and who gave back to the art of dance its specific character" (Robinson 35). In her career, Mary Wigman made lasting contributions to the domain of concert dance which permanently altered the domain, therefore classifying her as a creative person not only based on Csikszentmihalyi's definition, but recognized by many practitioners in the field of dance. Mary Wigman was and still is widely viewed by many dance artists as a creative pioneer in modern dance. Other examples in dance include: Isadora Duncan, Martha Graham, Katherine Dunham, José Limón, Merce Cunningham, and many others.

A summation of Csikszentmihalyi's Systems Model of Creativity states that:

*"Creativity occurs when a person, using the symbols of a given domain...has a new idea or sees a new pattern, and when this novelty is selected by the appropriate field for inclusion into the relevant domain.*" (Csikszentmihalyi 28)

### ***Types of Creativity***

According to Professor Kerrie Unsworth of University of Leeds', "different types of creativity emerge depending on the nature of the problem and the driver for engagement in creativity" (qtd. in Shalley et al.1-2). As stated by Unsworth, the nature of the problem can be open or closed and drivers can be internal or external (Shalley et al. 2). Internal versus external drivers of creativity means the motivation to solve the problem comes from the individual or from an outside source (Shalley et al. 2). Based on the argument that there are two types of problems and two possible drivers for creativity, Unsworth concluded there are four types of creativity. The four types of creativity are responsive, expected, contributory, and proactive (Shalley et al. 2).

The first type of creativity, responsive creativity, is based on "external requirements and a closed problem"(Shalley et al. 2). This means, an external force or factor has pushed the individual into the act of problem solving and the problem has limited solutions (Shalley et al. 2). Due to the limited nature of the problem, the outcome is anticipated (Shalley et al. 18). Existing literature states that "responsive creativity is predominantly seen in laboratory studies" (Shalley et al. 9) and "in work environments that are constrained by external forces" (Shalley et al. 9).

The second type of creativity, expected creativity, necessitates an "external requirement" and "an open problem as the starting point" (Shalley et al. 2). This type of creativity can be seen in response to a problem that has many possible solutions and an extrinsic motivator. For

example, as a part of his generation process, British choreographer Wayne McGreogor, and countless other choreographers, utilize guided imagery and improvisation exercises (Delahunta et al. 245). McGregor is the founder of London-based dance company, Random Dance, and is known as, “a prolific, curious-minded choreographer”(Craine and Mackrell), who has, “ created a distinctive style of edgy, hyper‑articulate dance” (Craine and Mackrell). In the generation phase of McGregor’s choreographic process, he often asks his dancers to participate in guided improvisation based on metal imagery (Delahunta et al. 245). In these exercises, McGregor is pushing his dancers into *expected creativity*. This is an example of expected creativity because the dancers are entering the creative act due to an external factor, Mcgregor’s instructions, and the problem has many solutions. Although this type of creativity is being performed by the dancer’s and not McGregor himself, it is an integral part of his creative process.

The third type of creativity is contributory creativity. In contributory creativity the driver is internal, meaning the creativity is entered into voluntarily, and the problem is closed (Shalley et al. 2). Studies have shown that adaptive-style thinking is important to contributory creativity (Shalley et al. 8). Adaptive-style thinkers, “create and bring about changes that fit into the existing system without drastically changing it” (Shalley et al. 3). To relate this idea to the process of generating and structuring choreography, in the previously mentioned article by Gavish and Stevens it states there are three possible strategies from the field of design used by choreographers (44). The three strategies are local, transitional, and process (Yilmaz et al. qtd in Gavish and Stevens 44).

When considering contributory creativity, local strategies demonstrate adaptive-style thinking. Local strategies, “involve modifying details within a single identified concept” (Gavish and Stevens 44). According to Gavish and Stevens, for choreographers this may look like

changing “the temporal, dynamical or spatial qualities of movements” and adding or removing features such as dancers, props, etc. (44-45). Local strategies modify details within an identified concept (Gavish and Stevens 44), and adaptive-style thinking creates, “changes that fit into the existing system without drastically changing it” (Shalley et al. 3); therefore, the two concepts are consubstantial. Additionally, in contributory creativity the problem is closed and when using local strategies the outcomes are more limited.

Finally, the fourth type of creativity is proactive creativity. Proactive creativity occurs when, “a person voluntarily chooses to engage in creativity and search for complex problems to solve” (Shalley et al. 2). This form of creativity has an internal driver and an open problem. For instance, Mary Wigman describes the first step of her creative process saying, “... the fundamental idea of any creation rises in me or, rather, out of me as a completely independent dance theme.” (Wigman 74). This statement implies that Wigman’s motivation or inspiration for entering into the choreographic process was internal and came from within. In reference to Unsworth’s four types of creativity, this is an example of proactive creativity because Wigman entered into a creative activity from an internal motivation and that activity had many complex and unknown solutions.

Unsworth’s theory on the four types of creativity is useful in this research because it provides a further understanding of creativity and codified ways to identify and categorize different forms of creativity as they are seen in the choreographic process. Using Unsworth’s theory, we can investigate creativity in the choreographic process based on motivation for entering into creativity and the nature of the problem to be solved.

### *Creative Problem Solving*

According to author Van Gundy, "a problem solving process is one whereby a situation that is not as it should be, is changed into one that is as it should be" (qtd. in Proctor 27). In the chapter, "The Creative Thinking Process" from, *Absolute Essentials of Creative Thinking and Problem Solving,* Proctor states "Creative problem solving presents a method and techniques for approaching a problem or a challenge in an imaginative and innovative way" (40). Scholars agree not all problems require the use of *creative* problem solving and sometimes a more direct or routine solution is more efficient (Proctor 27). Although direct problem solving may be present in the choreographic process, for this research we will focus on creative problem solving. To focus our analysis of creative problem solving, we will first look at the "Creative Problem Solving Model", as it is broken down in existing literature.

In the Creative Problem Solving Model, there are three goals pertaining to the structure of the model. First, "Creative", in which the goal is to search for novelty in ideas. This reminds us of our definitions of creativity from Csikszentmihalyi, Wallas, and Wertheimer, that all relate to the production of new, different, or novel ideas. The second goal, "Problem", means the creative act is attempting to close a gap between a current situation and where the individual engaging in the creative act would like the situation to arrive. This reminds us of Unworth's four types of creativity, which all relate to different types of problems to be solved. The third goal is "Solving", which results in resolving the problem and creating something useful and valuable (*Stages of the Creative Process- and You* (00:04:00-00:04:40)).

Everyone uses creative problem solving but we do not all move through the model in the same way. The term "cognitive style" refers to a person's preference for certain thinking styles. Cognitive style refers to how a person engages in thinking or processes and organizes

information. Cognitive style is one reason individuals approach creative problem solving in different ways (*Stages of the Creative Process- and You* (00:07:16-00:07:50)).

To relate this topic to the domain of dance and choreography, Alma Hawkins stated, "True creative work does not follow any set formula. Composing a dance is not like making a cake; no recipe tells the dancer how to measure and blend ingredients." (85). In this quote, Hawkins is alluding to cognitive style and the idea that individuals will approach the choreographic process in different ways. Similarly, the Butterworth Model, created by Jo Butterworth, contains 8 stages to the choreographic process. Butterworth argues that the 8 stages do not always appear in the same order or for the same duration. As a choreographer engages with a work, they may choose to go back and revisit previous stages at any time (Shalley et al. 42).

One model for creative problem solving has four stages: clarify, ideate, develop, and implement. A second model for creative problem solving has six stages. Those stages are; Objective Finding, Fact Finding, Problem Finding, Idea Finding, Solution Finding, and Acceptance Findings. In the first model, *clarify*, refers to identifying and clarifying the problem to be solved. This is similar to the Objective Finding and Problem Finding stages of the second model. In the second model, Objective Finding refers to "defining the problem area" and Problem Finding refers to correctly defining the problem (Proctor 41; *Stages of the Creative Process- and You* (00:03:00-00:03:51)). All three of these stages relate to Hawkin's concept of *function* in the choreographic process and the first stage of the Butterworth Model.

According to Hawkins, *function* is when the choreographer "clarifies the intent of the work" (85). The first stage of the Butterworth Model, known as Stimulus/Conception/Intention, occurs when the aim, context, or concept of a piece is determined (Shalley et al. 42). Hawkins

states that through the choreographic process the choreographer must constantly check use of material in reference to the function of the work (85). Scholars agree that clarification of the problem or determination of the intent of a work is an important step in the creative process (Hawkins 85; *Stages of the Creative Process- and You* (00:03:00-00:03:51); Proctor 41; Shalley et al. 42).

The second stage of the first creative problem solving model is *ideate*. Ideate means to generate ideas. This is most similar to the Idea Finding stage of the second creative problem solving model and the "Dance Content" Stage of the Butterworth Model. In the Idea Finding stage, an individual will generate solutions to the problem. In the Dance Content stage, identified by Butterworth, the choreographer generates a movement language. This can include working with improvisation or set material. All three of these concepts deal with the generations of ideas, solutions, or material (Proctor 41; Shalley et al. 42;*Stages of the Creative Process- and You* (00:03:00-00:03:51)).

The third stage of the first creative problem solving model is *develop,* which means to develop the ideas from the ideate stage into solutions, and the final stage is *implement*, which is to "give those ideas legs" or "bring what's in your head into reality" (*Stages of the Creative Process- and You* (00:03:00-00:03:51)). Similarly, the Butterworth Model contains a "Dance Content Development" stage, in which, "choreographers shape movement materials and expressive details, using choreographic devices such as making additions and/or manipulations that involve modifying the use of time and space" (Shalley et al. 42). In this stage, the movement language created in the generation stage is further developed to express the intent of the work. The Butterworth model contains two additional stages, the Rehearsal/Completion stage (Stage 6) and the Performance stage (Stage 7) (Shalley et al. 42). One could argue that

implementation is seen in both the Rehearsal/Completion and the Performance stage. The second model for creative problem solving does not contain a development stage. However, in the Acceptance Findings stage, chosen ideas are tested and implemented correctly (Proctor 41).

In this research, I will focus on the creative problem solving stages of clarify, ideate, develop, and implement, as they most closely relate to stages of the choreographic process identified in dance literature.

### *Choreographic Process*

According to the article, "A Conversation about Choreographic Thinking Tools" ,by Scott DeLahunta, Gill Clarke, and Phil Barnard, acclaimed choreographer Wayne McGregor's choreographic process can be broken down into a series of four steps or stages. Scott Delahunta is a writer, researcher, and current Professor of Dance, Center for Dance Research, at Coventry University (*Scott Delahunta: Biography and publications*); Gill Clarke was a dancer, teacher, and one of the UK's leading choreographers (Deceased November 5th, 2011)(Staff *Gill Clarke*); and Dr.Philip Barnard is a cognitive psychologist and research associate currently working in collaboration with Wayne McGregor(*People* ).

After years of collaboration with Wayne McGregor and research into choreographic process, Delahunta, Clarke, and Barnard claim that Mcgregor's choreographic process can be broken down into four stages including *conceptualization, generation, selection*, and *integration*, and his choreographic processes are presented in a non-linear model meaning the stages do not always happen in the same order (DeLahunta et al. 244). According to the visual model of McGregor's process presented in the article, the first step is typically conceptualization. However, the process can diverge from conceptualization to generation, back to conceptualization, to generation and selection, back to conceptualization, and so on and so forth

in no particular order until eventually reaching the final stage of integration (DeLahunta et al. 251).

This model of McGregor's choreographic process is similar to existing literature on the stages of creative problem solving which states that due to cognitive styles, individuals may prioritize different stages of creative problem solving (*Stages of the Creative Process- and You* (00:07:16-00:10:00)). The model of McGregor's process differs from the Butterworth Model because there is no stage in McGregor's process as identified by this article that relates to structuring or determining the layout or order of the work. One could hypothesize that structuring occurs during the "selection" or "integration" stages, however it is not specifically addressed in this source.

## ***Conclusion***

The goal of this review of literature is to investigate the process of creative problem solving and types of creativity as they appear in the generation and structuring phases of the choreographic process. The generation and structuring stages are identified by the Butterworth Model of the choreographic process. Generation is also described by Alma Hawkins and witnessed in the process of Wayne McGregor (DeLahunta et al. 244). According to scholars in the field of psychology, creativity involves cognitive processes that yield new and innovative solutions or ideas. Some scholars cite the use and restructuring of acquired knowledge in order to produce novelty solutions, while others delineate that these novelty solutions can only appear within the confines of a domain and through acceptance of the field (Proctor 2, 39; Csikszentmihalyi 27-28). According to Professor Kerrie Unswoth, there are four types of creativity. The four types of creativity are responsive, expected, contributory, and proactive (Shalley et al. 2). The four types of creativity are determined by the perceived nature of the

problem as open or closed and the driver for engagement in creativity. Using the literature reviewed in this chapter, this research will attempt to determine how creativity and creative problem solving are demonstrated in the generation and structuring phases of the choreographic process and if all four types of creativity are present.

# CHAPTER 2: METHODS

To answer the research question, "How do choreographers demonstrate creativity and utilize creative problem solving in the choreographic process?"; I used participant-observation methods, interviews, and engaged in a choreographic project. Consent for this research study was granted from the participants and an IRB (see Appendix A) was submitted to the Institutional Review Board of University of California, Irvine and found to be exempt from full review.

As participant-observer, I observed 6 choreographers in a rehearsal for a choreography and recorded my observations. The 6 choreographers included 3 second year graduate students in a MFA Dance Program at a large university and 3 faculty members from a Dance Department at a large university, both in the Southern California region. The graduate student choreographers will be referred to as Participants A-C and the faculty choreographers will be referred to as Participants D-F.

Following the rehearsal observations, I interviewed Participants A-F about creativity and their creative or choreographic process. Each participant answered a series of 10 questions (See Appendix D). The first two questions of the interview asked the participants to define creativity in their own terms and then explain what they felt identifies a creative process. In the next question I asked the participants to describe their own creative process when choreographing a new dance. The following four questions required the participants to explain individual stages of their choreographic process. I asked them a) what is the first step you take when creating a new dance, b) what does generation of material look like in your process, c) what does development of material look like, and d) how do you make decisions about the structure of a piece. Following our conversation about the creative process, I asked the participants what inspires them to create new work.

In the final stages of the interview I shifted the conversation to creative problem solving. I described to the participants four stages of creative problem solving set out in existing literature; ideate, develop, implement, and clarify (*Stages of the Creative Process- and You* (00:03:00-00:03:51)). I then asked the participants to consider their own creative process and identify which of these four stages they related to the most. In the last question I asked the choreographers to describe the role of the dancers in their process.

In addition to Participants A-F, I identified and contacted 10 professional, non-academic choreographers and artistic directors of dance companies in Southern California to be interviewed. Of the ten choreographers I contacted, I received three responses from choreographers who participated in this research. These choreographers will be referred to as Participants G-I. Participants G-I answered the same series of ten questions as Participants A-F.

In total, I interviewed 9 different choreographers representing three different facets of the dance community in the Southern California region. Following the interviews, I compared the answers of all 9 choreographers to determine what trends appeared in the approaches to creative process, problem solving, material generation, and structuring employed by these choreographers.

# CHAPTER 3: THE CHOREOGRAPHIC PROJECT

The choreographic portion of this research included the production of four new dance pieces. In his book, *Absolute Essentials of Creative Thinking and Problem Solving*, author Tony Proctor argues that “ill-structured problems", or problems that are new to the creator and contain ambiguous or incomplete information are best suited to creative problem solving because they are often complex in nature (Proctor 28). Following this logic I pushed myself into creative problem solving by creating four new dances, each proposing a different *set of problems* to be solved. While completing this choreographic project, I acted as a participant and an observer. I engaged in choreographic methods and kept journals in order to reflect and analyze my experience.

All four works created in this project were presented as a part of a shared concert with three other 2nd year MFA students in the Dance Department at UCI. This concert titled, *Collected Connections,* took place in the Experimental Media Performance Lab at UCI. The XMPL was a flexible theater space which allowed us to place the audience on three sides. I consider this a “problem” in this project because my main experience as a choreographer is creating dance for a proscenium style setting. In a proscenium style theater, the dance is viewed primarily from the front. With the audience somewhat in the round, I had to consider how the choreography would appear from many angles. This impacted the way the choreography was structured spatially and visually.

The first piece I created was a solo titled, “Bright in Light & Brisk in Life”. The first step in creating this work was selecting the music; “Bright in Light & Brisk in Life” was the only piece in this thesis project where the process started with a completed piece of music.

The composer of this work has a background in traditional Northern Indian music, which is evident in the piece. Listening to the music, I felt strongly that I wanted to address these influences in an accurate and respectful way. Therefore, I invited a graduate student choreographer with many years of experience training and performing in classical Indian dance forms to be an equal collaborator in this work. Together, we collaborated to generate movement that presents both modern and contemporary dance styles, with classical Indian dance influences such as rhythmic foot work, gesture, and posturing. For this solo, movement generation stemmed from the meter, tempo, lyrics, and cultural influences presented in the music.

***Embodying the Method:***

*My collaborator and I listened to the music several times. The title and the lyrics come from a Bengali poem that describes a metaphorical wave. We felt the music rise and fall multiple times, creating repeated high points of energy and low points, much like a wave. We decided to mimic this structure with the structure of the movement for the first half of the piece. When the music grows and becomes louder, the dancing becomes larger and more energetic. However, towards the middle of the piece this structure changes. To provide contrast, when the music is at its highest peak there is a pause in movement and a moment of stillness. Movement picks up again when the music settles back down.*

*We noticed there was repetition in the musical structure and the lyrics. This is mimicked by movement that is augmented and repeated several times. The movement itself is inspired by wave imagery and movements from classical Indian dance introduced by my collaborator. The meter of this music is in seven, consequently the movement phrases generated are in sevens.*

The second piece is a trio titled, "Evergreen*"*. In contrast to the solo work, choreography was created without music. To generate movement, I focused on visual stimulation as an inspiration and collaborated with the dancers to create material. The chosen visual stimuli for this work was trees.

*On the first day of rehearsal, I took the dancers outside to an area with many different trees. Without giving them too much guiding information, I gave the dancers paper to record observations of any kind, including words, drawing, thoughts, or feelings, as we observed trees in silence for thirty minutes. Although*

*the intention for this work was for the inspiration to be solely visual, I quickly realized that by taking our bodies outside we were inviting many other senses into the process. We were not only visually observing the trees, their shapes and movements, but feeling the air and sun on our skin, hearing the sounds of rustling leaves and people passing, and smelling grass and other scents in the air. The most prolific observation reported by all three dancers was a profound sense of calm and internal stillness created in the process. I feel that this sense had the strongest influence on the development of movement in this work.*

I structured this piece based on the idea of levels. I was inspired by the main levels of a tree: roots, trunk, branches. When the dance was completed, I sent a video of the dance to another graduate student composer. Using that video, the composer created a piece of music for the buzuq, a long-necked fretted lute, to accompany the dance. The composition was performed live with this work.

I worked on the third and fourth pieces in tandem. The third piece is titled, "The Playground", and consists of only structured improvisation. In the previous two pieces, I investigated methods of generating and structuring a dance piece. For this piece, I chose to use structured improvisation to see how the process was affected when I relinquished control over the movement generation and structure of the piece.

*I center this dance around abstract ideas of creativity. When asked to define creativity, I recall how many of the choreographers I interviewed mentioned the idea of having a child-like mind and allowing oneself to look at things differently. From this recall, I use "play" as the prompt and it will take place in the center of the stage. I then think of inspiration and development of ideas as an integral part of the creative process. The outer edges of the stage are where "inspiration" takes place. For this prompt, I instruct the dancers to be inspired by an idea, their idea, and live in the development of that idea for as long as they choose. As a final element, I was inspired by the image of a person writing ideas on a piece of paper, crumpling up the paper, and throwing it away when they are dissatisfied. From this, I decided to litter the stage with colorful paper balls. The paper balls are there for the dancers to play with and be inspired by, while simultaneously representing the hundreds of ideas present in the space.*

To begin this piece, I did not assign a number of dancers for this work. I allowed the dancers to decide for themselves if they would perform in this piece. Ultimately, 7 dancers

decided to participate in this piece. The challenge for me as the "choreographer" for this piece was to create an improvisation score that did not lend itself to a specific movement aesthetic or narrative. The associated problem here was deciding how much information is sufficient to create a work and remain removed. The music for this piece was performed live by the same graduate student composer who composed and performed for "Evergreen". I asked the composer to make their own decisions about the music for this piece, including improvisation.

The fourth and final work in this program was titled, "Underwater*"*. A main feature of this work is polyrhythm. I worked collaboratively with the composer from the first piece, "Bright in Light & Brisk in Life", who created an original score for this piece that is simultaneously in a meter of 3, 4, and 5. The goal of this choreography was to visually represent that polyrhythm. Additionally, I looked critically at the structure of the first two pieces created, "Bright in Light & Brisk in Life" and "Evergreen*",* and created an outline for the organization of this choreography that was different from either of these pieces.

To generate movement I decided to utilize process strategies, as described in the article, "Thinking Strategically about Dance Making: An Analysis of the Structuring Stage and the Strategies Choreographers Use for Varying Dance Works", by Maya Gavish and Catherine Steven. According to Gavish and Stevens choreographers use process strategies, "as a tool for varying their dance designs and extending their creativity"(45). An example of a process strategy would be taking excerpts from a previous work and reworking or reorganizing them to create something new (Gavish and Steven 45).

I was inspired to follow this platform for the creation of "Underwater". For this piece, I did not create any "new" movement. All of the movement in "Underwater" originated from movement phrases in the solo "Bright in Light & Brisk in Life" and the trio "Evergreen*"*. I took

these pre-existing movement phrases and manipulated them to create something completely different.

> *I thought creating this piece would be easy because I had so much material to pull from. However, in this piece more than any other, I felt moments of frustration and lack inspiration. The music proved to be very difficult for the dancers because for the first three minutes, there was no discernible rhythm or pulse. The overlapping meters combined in such a way that it was impossible to distinguish. The dancers could not rely on the music for temporal information so they had to rely on each other. Working as a group, they were able to find moments of consistency but I could feel that they were struggling.*
>
> *In the beginning of this process I felt like my creativity was being stifled because I had to use the movement from other pieces instead of being inspired by a concept and creating something new. I felt the movement lacked direction and purpose. About halfway through the process, I realized I was struggling to feel connected to the piece because there was no direction. I had been going through the process thinking only of movement and not of the larger impression of the work. Once I became inspired by a narrative concept for the piece, the process became easier and more fulfilling.*

The goal of this choreographic project was to set up problems for myself to solve related to movement generation and structuring. Throughout the process I observed how this affected my creative process. For each piece I had a goal for what I was hoping to achieve, but little information regarding the final product or how I would get there. According to Proctor's earlier definition, this is an “ill-structured” problem and therefore well suited for creative problem solving because it is ambiguous and complex (28).

# CHAPTER 4: FINDINGS

Through this research I found creativity in the choreographic process was demonstrated through the following trends; spontaneous thinking; improvisation; use of prior knowledge gained from experience; forming connections between ideas; preparation; exploration; an ability to edit and view your work objectively; collaboration; and consideration of sound, scenic, or other design elements. This research revealed the 9 choreographers generally demonstrated different cognitive styles when it comes to approaching creative problem solving and three of the four types of creativity[1] were evident in their processes.

### *Spontaneity*

Graduate student choreographers, Participants A and B, both indicated spontaneous thinking as a theme in their creative process. Participant A expressed spontaneous thinking through the use of analogy. They described creativity as the moment, "when the light bulb goes on". Participant B stated directly that creativity is spontaneous thinking with the mind and body. Additionally, faculty choreographer Participant F, described creativity as involving a child-like mindset. Participant F described that a person must allow themselves to *"run"* ,*"be free"*, and use their imagination in order to be creative. The notion of freedom, imagination, and utilizing a child-like mindset, implies a degree of spontaneity.

### *Improvisation*

Choreographers from all three groups stated improvisation is a part of their movement generation process. Graduate Student Participants A and B, Faculty Participant E, and Artistic Director Participants G and I, all stated they improvise movement within their own body to generate movement on the spot in rehearsals. The improvised movement is then replicated by

[1] According to Professor Kerrie Unsworth of University of Leeds', "different types of creativity emerge depending on the nature of the problem and the driver for engagement in creativity". As stated by Unsworth, the nature of the problem can be open or closed and drivers can be internal or external.The four types of creativity are responsive, expected, contributory, and proactive (Shalley et al. 1-2).

their dancers and often refined by the choreographer. Participants A and B stated they will also ask their dancers to improvise in order to generate movement. Participant A stated they give the dancers a set of directions or a feeling to embody and asks them to improvise based on those instructions; while Participant B stated they ask their dancers to improvise in order to see what their movement is like when they have creative freedom. Participant B stated they then refine and edit the dancers improvisation for incorporation into the choreography.

### *Knowledge & Experience*

Graduate Student Participants A and C, as well as Faculty Participant E, all stated their creativity is directly related to knowledge gained through experience. Experience in this context refers to dance training, knowledge of a particular movement technique, and experiences in a particular environment or culture. Participant A grew up in the Middle East and stated their experience living in that part of the world greatly influences their creative process. Similarly, Participant E stated when they generate movement they borrow from their experience growing up in Brazil, as well as their training in classical ballet, contemporary dance, and Capoeira, a Brazilian martial art and dance form. Participant C stated they are more creative when choreographing ballet movements than other genres of dance because of their background in classical ballet training. All of these participants are utilizing previous knowledge and experience in order to be creative.

### *Connections*

Multiple choreographers described the ability to organize your thoughts and form connections between ideas as a part of the creative process. Graduate Student Participant A described creativity as a process where an individual decides they want to do or make something and works through, plays with, implements, or combines different ideas together to get to the

final product. Faculty Participant E described creativity as connecting "*something you know with something that you don't".* This connection is achieved through a process that demonstrates creativity because it reveals something new to the choreographer.

### *Preparation*

This research has revealed there are several dichotomies existing in the creative process. It was revealed that spontaneity and improvisation are integral components of a creative choreographic process; however, in contrast to spontaneity, there is practice, preparation, and work. Preparation can look like coming into a rehearsal with a preset plan; creating a structure for your work; accounting for time management; or generating lots of material in order to revise, sift through, and edit that material in rehearsal. The element of work and effort involved in the creative process is evidenced by Artistic Director Participant G's statement that part of being an artist is, *"doing the dirty work as much as the highlights".*

### *Exploration*

Exploration in the choreographic process was demonstrated through; openness and receptivity to new information; the act of leaving behind preconceived ideas and breaking away from habitual actions; the act of challenging oneself to do something you have never done before; freedom to choose a direction in the process; keeping an open mind and not anticipating the outcome of the process; pushing through a weakness or fear; and investigating different physical practices that challenge the choreographer's typical movement patterns. These ideas were revealed by the interview responses of Graduate Student Participants B and C, Faculty Participant D and F, and Artistic Director Participants G, H, and I.

### *Objectivity*

Faculty Participants D and E, and Artistic Director Participant G all stated it is important for choreographers to stay objective and not become overly attached to their material. An ability to detach from material and remain objective is important for two reasons: 1) Participants D and G both describe in the developing and editing processes, it is important to see when material is not supporting the work and be able to discard that material when necessary, 2)Participant E described that ultimately the material will be embodied and performed by the dancer, unless the choreographer is also the performer. In these cases, the choreographer must relinquish some control and respect that in performance, the final embodiment of the movement will belong to the dancer. An over-attachment to material could inhibit success and creativity in the choreographic process by hindering the editing process and the performers embodiment of the movement.

### *Collaboration*

Graduate Student Participants A and B; Faculty Participants D, E, and F; and Artistic Director Participants G, H, and I, all stated collaboration as a necessary component of the choreographic process. Collaboration in the choreographic process can appear in the following ways; asking the dancers to provide feedback, creativite input, and contribute movement; seeking feedback from peers; gaining an outside perspective from others; and working together with artists such as composers, designers, and other choreographers. Collaboration appears in the choreographic process on different levels and magnitudes but it demonstrates creativity by bringing multiple perspectives into the process and pushing the creator into new territories. Most of the choreographers described receiving feedback or collaborating with dancers, designers, and other artists as an integral part of their creative process.

### *Sound & Scenic Elements*

A final trend that became apparent in this interview process was the choreographers' connection to music, site location, and other scenic elements in their creative process. Graduate Student Participants B and C, Faculty Participants E and F, and Artistic Director Participant I all stated they are influenced heavily by music in their creative process. Music provides emotional, conceptual, and movement inspiration; music influences the dynamic and temporal qualities of movement generation; and music either influences the structure of the work or provides a structure for the choreographer to base the work upon. Artistic Director Participant H stated they work exclusively in site-specific locations and the location is a major influencing factor in the process. Factors such as music, sound score, and site location are integral to the choreographic process because they stimulate imagination and influence decision making which are elements of creativity.

### ***Stages of Creative Problem Solving***

Existing literature identifies four stages of creative problem solving as ideate, develop, implement, and clarify (*Stages of the Creative Process- and You* (00:03:00-00:03:50)). During interviews with 9 choreographers, I described these four stages and asked each choreographer to identify which stage they had the strongest preference for as a part of their creative process.

Participant group A-C includes graduate student choreographers. Participant A stated they have the strongest preference for implementing; Participant B has the strongest preference for ideate and clarify; and Participant C prefers ideate.

Participant group D-E includes dance faculty choreographers. Participant D argued that all the stages overlap in concentric circles but they most enjoy the development stage. Participant E stated implementing is the most important of the four stages and Participant F stated they have the strongest preference for ideate and develop.

Participant group G-I includes artistic directors of dance companies in Southern California. Participant G was the only choreographer interviewed to state plainly they did not prefer any of the steps and they do not see the choreographic process in that way. Participant H stated that clarifying the problem is the most important and Participant I stated they currently identify most with implementing.

Of the graduate student choreographers, the most preferred stage was ideate. In the group of faculty choreographers the most preferred stage was develop, and in the artistic director group there was no trend. As a whole, out of 9 choreographers, 22% of choreographers preferred ideate, approximately 17% preferred develop, 33% preferred implement, and approximately 17% preferred clarify. If a choreographer chose more than one stage, I considered that half of a vote in favor of each stage for the sake of this comparison, and there was no vote for Participant G who did not select any of the stages presented.

The results show there is virtually no trend present and the choreographers all prefer different stages of creative problem solving. There is a slight inclination for implementing, but the results are too similar to consider this a strong trend. These results support the idea that all of the choreographers have a different cognitive style and approach creative problem solving in the choreographic process differently. A limitation of this small qualitative study is the small sample size. If this study was repeated with a larger sample, the results may vary.

### *Types of Creativity: Revealed*

Through this research, I have identified three out of the four types of creativity are present in the choreographic process. The first type of creativity, responsive creativity, is based on “external requirements and a closed problem”(Shalley et al. 2). This was the only type of creativity I was unable to identify in the choreographic process. Existing literature states that

"responsive creativity is predominantly seen in laboratory studies" and "in work environments that are constrained by external forces" (Shalley et al. 9). This may be why it was difficult to identify in a choreographic process, which typically entails an open-ended environment. I feel it is highly possible that responsive creativity is present in the choreographic process; however, I did not see evidence of it in either the rehearsal observations or interviews included in this research.

The second type of creativity, expected creativity, necessitates an "external requirement" and "an open problem as the starting point" (Shalley et al. 2). There are many external factors that force choreographers into a creative situation but a factor that surfaced in this research is commissioning, grants, or pre-established conditions for work by an employer or environment. Faculty Participant D and Artistic Director Participant G both described situations in which they are offered a commission or grant, or are invited to set a work in a certain environment, and these opportunities include specific parameters. These parameters could include who participates in the work, who will view the work, the length of the work, or even thematic properties of the work. In these situations, there is an external motivator influencing the creative act based on the opportunity being offered. However, the creative project itself still has many open-ended solutions.

The third type of creativity is contributory creativity. In contributory creativity the driver is internal, meaning the creativity is entered into voluntarily, and the problem is closed. Studies have shown that adaptive-style thinking is important to contributory creativity. Adaptive-style thinkers, "create and bring about changes that fit into the existing system without drastically changing it" (Shalley et al. 2-3;8). An example of this is a choreographer editing movement or details of a work that do not alter the overall structure or concept of the dance. I observed an

example of this in the rehearsal of Faculty Participant D. During a rehearsal on February 7, 2022, I witnessed Participant D working through duet material with two dancers. Participant D was editing the movement to create moments of unison and connection between the dancers. Participant D made small adjustments to the choreography that enhanced the connection between the two dancers but did not alter the overall structure of the duet. Participant D entered into this act voluntarily meaning the driver is internal and the overall structure of the duet was not altered, therefore the solutions were limited and the problem relatively closed.

Finally, the fourth type of creativity, proactive creativity occurs when, "a person voluntarily chooses to engage in creativity and search for complex problems to solve" (Shalley et al. 2). Graduate Student Participants B and C; Faculty Participant D and F; and Artistic Director Participants G, H, and I all described that the choreographic process should be explorative, open-ended, and the individual should be able to choose the path they want to follow while letting go of preconceived notions about what the outcome will be. By this logic, as long as the choreographer enters into the choreographic process willingly, each of their processes demonstrate expected creativity because they are complex with many possible solutions and outcomes.

# CHAPTER 5: DISCUSSION

A challenge in this research was a reculance from the choreographers to define, categorize, or label what creativity is and what identifies creative process. Faculty Participant D remarked they do not define creativity. However, in the same breath they also stated,"*Creativity is life. Life is creativity, it's just a part of being alive."* Participant D described that the creative process is in a constant state of adjustment; there is no pre-existing model, formula, or procedure available for creative process; and the creative process is, "*undefined until it is defined"*. These statements become contradictory because while the participant is stating they do not define creativity and the creative process is undefined, they also provide characteristics which elucidate factors of creativity and creative process. Many choreographers remarked that the questions about creativity and their process were difficult to answer. However, each participant was able to state multiple components involved in creativity and creative process and many of their answers displayed commonalities. This shows that, however complex and intricate, creativity in the choreographic process can be characterized and identified.

Although the participants found it challenging to define creativity, how one accesses creativity seemed to be a primary concern of all the participants. Their mind set when answering interview questions appeared to be, "How can I make the choreographic process creative?" and "these are some of the ways to approach the choreographic process". By providing methods for approaching choreography and making the choreographic process creative, the participants amplified the implication that creativity can be developed through practice and study. Only two participants out of nine alluded to the idea that creativity is innate in some people and not others; that creativity involves talent; or that some people are born more connected to their creativity

than others. Since this topic would require much more research into human development I do not address it in this work but include it because it was a commonality.

### *Personal Thoughts*

As a part of this research I challenged myself to create four new dance works. Each of these works entailed a different set of choreographic problems to solve. I hoped to facilitate creativity by setting goals for myself and forcing myself into creative problem solving. I think this project was successful in facilitating creativity because I approached each process differently than I would normally approach a choreographic process; I created movements and structures that I may never have created without these specific challenges; and I collaborated with new dancers and artists I had never worked with before.

During this process, there were times where I felt uninspired, frustrated, and stuck. I discovered by working through those challenges that creativity does not always feel like "a light bulb went on". However, the practice of working past moments of adversity can lead to new creative discoveries. This practice develops the skill and ability to problem solve and find innovative solutions.

Outside factors such as the availability of rehearsal time, space, and resources, were influencing factors in the success of this project. At times it was difficult to stick to the guidelines I had set out for myself and I was thankful to be working collaboratively with other artists who fueled my creativity. There were failures and triumphs in the choreographic project however, as a whole it was successful in demonstrating creativity because I pushed myself into new territories of the choreographic process.

# CONCLUSION

This research suggests that creativity in the choreographic process is a skill that requires development, practice, awareness, receptivity, and a bit of spontaneity. Through participant observations, interviews with 9 choreographers, and the creation of 4 choreographic works, I discovered the following elements are necessary to demonstrate creativity in the choreographic process: 1) recognize that creativity is a process that changes over time 2) recognize there is an exchange between choreographer and collaborators that involves and influences the work 3) keep an open mind and in some cases let go of preconceived constructs 4) acknowledge improvisation comes into the process at various times, and 5) acknowledge music, sound, site location, and other elements as stimuli for the choreographic imagination.

Future implications of this research include self learning resources for choreographers who are interested in better understanding the creative process and methods for approaching choreography. This research is useful for other designers, artists, and collaborators, who are interested in working with choreographers. I hope that they will look at this research as a resource to learn about the choreographic process and enhance their experiences working with choreographers creatively.

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# APPENDIX A: IRB

UCI Office of Research

**Institutional Review Board**
**Human Research Protections**

**Exempt Self-Determination Tool**

**UPDATED!** *Version March 2021*

**UC Irvine IRB review is required for *most* activities that constitute engagement in human subjects research, as federally defined.**

**At UCI, researchers, including undergraduate students proposing exempt human subject research as part of the Undergraduate Research Opportunities Program (UROP) are permitted to self-determination their exempt research without confirmation from the IRB.**

**IMPORTANT! Should the study sponsor require evidence of IRB review for a self-determination of exempt research, please provide the sponsor this letter.**

**INSTRUCTIONS:**

1. **Review Parts A & B to determine if the research is eligible for exempt self-determination.**
2. **If the research is eligible for exempt self-determination, maintain a copy of the completed Exempt Self-Determination Tool and any supporting documentation in your records.**
   a. **Sign the Lead Researcher (LR) Assurance statement at the end of the Exempt Self-Determination Tool. Obtain the Faculty Sponsor's signature as appropriate.**
   b. **IMPORTANT! Do NOT submit the Exempt Self-Determination Tool to the IRB.**
3. **If UCI IRB Review *is* required, please submit a New IRB Application for exempt, expedited, or full committee review. For more information, please review: How To Submit Electronic IRB Applications for Review.**

**If you have questions about completing the Exempt Self-Determination Tool or about the IRB process in general, contact the Human Research Protections staff.**

**COVID-19 IMPORTANT REMINDER! Refer to the Office of Research webpage on Research Continuity for details on what research is allowed at UCI.**

**PART A: VERIFY SELF-DETERMINIATION ELIGIBILITY**

**The activity is eligible for exempt self-determination *IF* all of the statements below are true.**

**IMPORTANT! If one or more statement below are not true then the research is not eligible for exempt self-determination and IRB review is required.**

X **A. The research IS human subject research.**
Please review the Non-Human Subject Research Determination form. If your activity is non-human subject research, please complete the form and maintain it for your records. If your activity does not qualify as non-human subject research, please check the box to the left and proceed to the next check box.
***NOTE: Graduate student dissertation research involving humans is considered human subject research – please check the box to the left.***

X **B. This research is NOT Food and Drug Administration (FDA) regulated.**
An individual becomes a *human subject* for FDA purposes if their data or specimens are used as the recipient of the test article or control. For example, when retrospective data are used as the control, the individuals become human subjects. Likewise, when an individual's blood sample is used to test an assay, the individual becomes a human subject. *Specimen* includes the use of leftover specimens **that are not individually identifiable** (e.g., a remnant of a human specimen collected for routine clinical care or analysis that would otherwise have been discarded).

X **D. The research is NOT supported by the Department of Justice (DOJ).**
Research that is funded/supported by the Department of Justice (DOJ) is not eligible for exemption either by Self-Determination or through submission to the IRB. Submit a New IRB Application for expedited / full committee review. For more information, please review: How To Submit Electronic IRB Applications for Review.

X **E. The research does NOT include any of the following.**

1. The use or disclosure of UCI Protected Health Information (PHI)[1]
    a. *Use* is any sharing, employment, application, utilization, examination, or analysis within the entity
    b. *Disclosure* is any release, transfer, provision of access to, or divulging outside of entity
2. A targeted recruitment of children targeted recruitment of children
3. A targeted recruitment of adults (age 18 or older) who may not be legally/mentally/cognitively competent to consent
4. A targeted recruitment of prisoners (*may* include parolees)
5. A targeted recruitment of American Indian/Alaska Native tribes
6. A targeted recruitment of undocumented people
7. International Research
8. A request for UCI to serve as IRB of Record for non-UCI individuals engaged in human subjects research.
    a. Note: To initiate a request for UCI to serve in this capacity, the LR must have a dual affiliation with the non-UCI entity and IRB review is required to formalize the reliance process.
9. A study team member has a Disclosable Financial Interest

**IMPORTANT! IRB approval is required to enroll any of the above listed subject populations. Should the study team inadvertently encounter a potential subject that belongs to an excluded population above, this individual may NOT be enrolled in the study.**

[1] When PHI is communicated inside of a covered entity, this is called a ***use*** of the information. When PHI is communicated to another person or organization that is not part of the covered entity, this is called a ***disclosure***. HIPAA allows both use and disclosure of PHI for research purposes, but such uses and disclosures have to follow HIPAA guidance and have to be part of a research plan that is reviewed and approved by an Institutional Review Board (IRB).

**PART B: VERIFY EXEMPT CATEGORIES ELIGIBLE FOR SELF-DETERMINIATION**

1. **Please review the following Exempt categories that are eligible for self-determination.**
2. **Check the category(ies) that apply to the research.**

**IMPORTANT! If one or more category below are not applicable then the research is not eligible for exempt self-determination and IRB review is required.**

| | |
|---|---|
| | **Category 1: Education** (the following criteria must be met) |
| X | Research, conducted in established or commonly accepted educational settings and specifically involves normal educational practices that are **NOT** likely to adversely impact students' opportunity to learn required educational content or the assessment of educators who provide instruction. This includes most research on regular and special education instructional strategies, and research on the effectiveness of or the comparison among instructional techniques, curricula, or classroom management methods.<br><br>**IMPORTANT!** Research involving the secondary analysis of materials derived from normal educational practices is not eligible for Exempt Category 1 and must either be reviewed under Exempt Category 4 or Expedited Category 5. |
| | **Category 2: Interactions** (the following criteria must be met) |
| X | Research that includes only interactions involving educational tests (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures, or observation of public behavior (including visual or auditory recording) [2]<br><br>***One of the following criteria must be met:***<br><br>☐ 2i) The information obtained is recorded by the investigator in such a manner that the identity of the human subjects **CANNOT** readily be ascertained, directly or through identifiers linked to the subjects<br><br>***OR***<br><br>X 2ii) Any disclosure of the human subjects' responses outside the research would **NOT** reasonably[3] place the subjects at risk of criminal or civil liability or be damaging to the subjects' financial standing, employability, educational advancement, or reputation |
| | **Category 3i: Behavioral Interventions** ***(All of the following criteria must be met)*** |
| X | The research involves behavioral interventions in conjunction with the collection of information from an **adult subject** through verbal or written responses (including data entry) or audiovisual recording if the subject prospectively agrees to the intervention and information collection |
| X | The behavioral interventions are brief in duration[4], harmless, painless, not physically invasive, not likely to have a significant adverse lasting impact on the subjects, and the investigator has no reason to think the subjects will find the interventions offensive or embarrassing.<br><br>Provided all such criteria are met, examples of such benign behavioral interventions would include having the subjects play an online game, having them solve puzzles under various noise conditions, or having them decide how to allocate a nominal amount of received cash between themselves and someone else. |

[2] *Subpart D applicable only when involving educational tests or the observation of public behavior when the investigator(s) do NOT participate in the activities being observed.*

[3] *Reasonably defined as with fair and sound judgment; a standard used by an ordinary, rational person under similar circumstances.*

[4] *Brief in duration is intended to refer to the intervention as opposed to the intervention and the data collection activities together. To meet the requirement of brief in duration, the benign behavioral intervention should last a few minutes to a few hours. While it does not have to occur in a single session, the entire time for the intervention should occur on a single day and not exceed a few hours in its entirety.*

| | |
|---|---|
| X | ***One of the following criteria must be met:***<br><br>☐ 3iA)The information obtained is recorded by the investigator in such a manner that the identity of the human subjects **CANNOT** readily be ascertained, directly or through identifiers linked to the subjects<br><br>***OR***<br><br>☒ 3iB) Any disclosure of the human subjects' responses outside the research would **NOT** reasonably place the subjects at risk of criminal or civil liability or be damaging to the subjects' financial standing, employability, educational advancement, or reputation |
| | **Category 4: Secondary research for which consent is not required:** |
| ☐ | ***One of the following criteria must be met:***<br><br>☐ 4i) The identifiable private information or identifiable biospecimens are **publicly available**;<br><br>Note: Category 4i applies to secondary research use of archives in a public library, for example, or to government or other institutional records where public access is provided on request, or from a commercial entity if the information is provided to members of the public on request or if the only requirement for obtaining the information is paying a user fee, registering or signing in as a visitor to an archive. It would also apply if a commercial entity made identifiable biospecimens publicly available to anyone on request or for a fee.<br><br>***OR***<br><br>☐ 4ii) Information, which may include information about the biospecimens, is recorded by the investigator in such a manner that the **identity of human subjects cannot readily be ascertained** directly or through identifiers linked to the subjects, the investigator does not contact the subjects, and the investigator will not re-identify subjects**;** |

**SECTION 1: STUDY INFORMATION**

| |
|---|
| **1. Specify Activity Title (if applicable).** |
| **Exploring Creative Process in Dance Making** |
| **2. Identify the funding source. *Check all that apply:*** |
| ☒ Student project that will incur no costs. |
| ☐ Department or campus funds (includes department support, unrestricted funds, start-up funds, personal funds, campus program awards, etc.) |

☐ Grant/Subaward ***OR*** ☐ Contract/Subcontract

1. Provide details below:

   Prime Awardee(s):

   Sponsor Name(s):

   SPA Proposal or Award #(s):

2. **Maintain on file:** A copy of the human subjects portion of the grant.

☐ Other; specify:

**SECTION 2: PURPOSE OF THE RESEARCH**

**1. Provide a non-technical summary of the proposed research that can be understood individuals with varied research backgrounds, including non-scientists.**

**This summary should not exceed ½ of a page.**

The purpose of this research is to identify methods employed by choreographers when creating and structuring a dance. Existing literature identifies decision making, intuition, limitation, and stimulus as key aspects of the creative process of dance making. As further investigation of these key aspects, the researcher will observe and examine the dance making process of professional choreographers and graduate students pursing a Master of Fine Arts in Dance, from the University of California, Irvine. The researcher will analyze the methods observed in comparison to the key aspects of choreographic process identified by existing literature. The methods of this research will include interviews with professional choreographers who own their own professional dance companies, as well as observation and intervention in the rehearsal process of graduate dance students at the University of California, Irvine while they are creating a dance piece. The researcher will be completing a review of literature on topics of creativity, creative process, choreographic methods, and contemporary dance choreographers.

**2. Describe the purpose, specific aims or objectives.**

**3. Specify the hypotheses or research questions to be studied.**

The purpose of this study is to identify methods of approaching the creative process of dance making. The researcher aims to identify these methods through interviews from 6-10 professionals in the field of dance who are experienced dance makers, using a set list of interview questions. Additionally, the researcher will interview MFA dance students using the same series of interview questions for comparison and observe these students during their rehearsal process. This study aims to answer questions about what steps take place during the choreographic process. Research questions addressed in this research include: What key processes are taking place while a choreographer is creating a dance? What is happening in the mind of a choreographer when making a dance? Are there identifiable steps within the choreographic process? Is there an order of execution, in terms of choreographic methods? What happens first in the mind of a choreographer?

**4. COVID-19: Does this research include a focus on SARS-CoV-2/COVID-19 (Coronavirus)?**

☒ **NO**

☐ **YES: Please consider whether Ancillary Committees for COVID-19 Research apply.**

**5. If study team will recruit their own students and/or employees, specify the precautions taken to avoid compromised objectivity.**

☐ Not applicable: Study team does not recruit their own students/employees.

**SECTION 3: STUDY TEAM**

**A. UCI Study Team**

**1. List the Lead Researcher (LR), Co-Researchers (CR), and Research Personnel (RP) who will be engaged in human subject research.**

- **CRs are faculty, staff, students and other academic appointees who the LR considers to be key personnel for conducting the research study. These individuals work closely with the LR to design, conduct, and/or report on the research.**

**2. If there is a Faculty Sponsor (FS), they must be identified to provide oversight and guidance to the LR. The FS should be designated as having access to the identifiable information and/or identifiable biospecimens.**

**3. Include additional rows for study team members, as needed.**

**4. For each individual, indicate all applicable research activities they will perform.**

a. **Finalizing informed consent is reviewing, answering/asking questions, confirming competency, as necessary, and signing/confirming the informed consent.**

**IMPORTANT! Do not list non-UCI researchers below. To initiate a request for UCI to serve as the IRB of Record for non-UCI researchers, the LR must have a dual affiliation with the non-UCI entity and IRB review is required to formalize the reliance process.**

**LR Name & Degrees:** Kelly McGill, B.F.A. **Position/Title:** Graduate Student **Department:** Dance

**Affiliation:** ☐ UCI Faculty ☐ UCI Staff ☒ UCI Grad Student ☐ UCI Undergrad ☐ UCI Other:

**Duties:** ☒ Screen/Recruit Subjects ☒ Finalize Informed Consent ☒ Translate Consent
☒ Access/Analyze Identifiable Information ☐ Access/Analyze Identifiable Biospecimens
☒ Research Procedures; specify: **Conduct interviews, attend rehearsals for observation and intervention**

**List the research activities/procedures to be performed and the individual's relevant qualifications (training, experience):** **The lead researcher will be designing interview questions and conducting interviews with professional choreographers. Additionally, the lead interviewer will be attending rehearsals held by graduate dance students at UCI to make observations and hold interventions. These interventions will include questions posed at specific time intervals during the rehearsals process. The lead researcher will attend three rehearsals for each choreographer and during each rehearsal they will ask the choreographer, "What are you thinking?", at the 30-, 60-, and 90-minute marks. The lead researcher has trained as a dancer for 20 years, they have 4 years of dance teaching experience, 3-5 years of choreographic experience, danced professionally for 3 years, and have a BFA in Dance from Shenandoah Conservatory in Winchester, VA.**

☒ **FS Required OR** ☐ **FS not Required**

**FS Name & Degrees:** Lisa Naugle, Ph.D. **Position/Title:** Professor of Dance **Department:** Dance

**Affiliation:** [X] UCI Faculty [ ] UCI Other:

**Duties:** [X] Oversight of Research [ ] Screen/Recruit Subjects [ ] Finalize Informed Consent
[ ] Translate Consent [ ] Access/Analyze Identifiable Information
[ ] Access/Analyze Identifiable Biospecimens [ ] Research Procedures; specify: **Review interview Questions and List of Interviewees**

**List the research activities/procedures to be performed and the individual's relevant qualifications (training, experience):** **The faculty sponsor, Lisa Naugle, will oversee all research and advise on interview questions and interviewees. Lisa Naugle holds a Ph.D. in Dance from New York University, is a Professor of Dance at UCI, and has extensive experience a dancer, performer, educator, and choreographer.**

---

[ ] **CR OR** [ ] **RP**

**Name & Degrees: Position/Title: Department:**

**Affiliation:** [ ] UCI Faculty [ ] UCI Staff [ ] UCI Grad Student [ ] UCI Undergrad [ ] UCI Other:

**Duties:** [ ] Screen/Recruit Subjects [ ] Finalize Informed Consent [ ] Translate Consent
[ ] Access/Analyze Identifiable Information [ ] Access/Analyze Identifiable Biospecimens
[ ] Research Procedures; specify:

**List the research activities/procedures to be performed and the individual's relevant qualifications (training, experience):**

---

[ ] **CR OR** [ ] **RP**

**Name & Degrees: Position/Title: Department:**

**Affiliation:** [ ] UCI Faculty [ ] UCI Staff [ ] UCI Grad Student [ ] UCI Undergrad [ ] UCI Other:

**Duties:** [ ] Screen/Recruit Subjects [ ] Finalize Informed Consent [ ] Translate Consent
[ ] Access/Analyze Identifiable Information [ ] Access/Analyze Identifiable Biospecimens
[ ] Research Procedures; specify:

**List the research activities/procedures to be performed and the individual's relevant qualifications (training, experience):**

---

[ ] **CR OR** [ ] **RP**

**Name & Degrees: Position/Title: Department:**

**Affiliation:** [ ] UCI Faculty [ ] UCI Staff [ ] UCI Grad Student [ ] UCI Undergrad [ ] UCI Other: **Type Here**

**Duties:** [ ] Screen/Recruit Subjects [ ] Finalize Informed Consent [ ] Translate Consent
[ ] Access/Analyze Identifiable Information [ ] Access/Analyze Identifiable Biospecimens
[ ] Research Procedures; specify: **Type Here**

**List the research activities/procedures to be performed and the individual's relevant qualifications (training, experience):** **Type Here**

**SECTION 4: SUBJECT POPULATION(S) (INDIVIDUALS/RECORDS/BIOSPECIMENS)**

**A. Persons/Records/Biospecimens to be Enrolled**

1. **Complete the table below with each Category/Group documented on a separate row. Include additional rows for categories/groups, as needed.**
2. **Specify the maximum number of individual-level information and/or biospecimens to be accessed/analyzed within each cohort and in total across all cohorts.**

| **Category/Group** (e.g., adults, parents, healthy controls) | **Age Range** (e.g., 18 or older) | **Maximum Number to be Consented or Reviewed/Collected** (include withdrawals and screen failures) | **Number Expected to Complete the Study or Needed to Address the Research Question** |
|---|---|---|---|
| Professional Choreographers | 18 or Older | 10 | 5 |
| Graduate Dance Students | 18 or Older | 10 | 5 |
| | | **Total: 20** | |

**B. Overall Study Sample Size**

**If this is a multi-site study, provide the total number of subjects to be enrolled from all sites.**

☐ Not applicable: This study will only take place at UCI and does not involve other sites.

Specify total number of subjects across all sites: **Ten subjects will take part in the study at UCI, Mesa Arts Building, and ten potential other subjects will take part in the study via Zoom.**

**C. Eligibility Criteria**

1. **Identify the criteria for inclusion and exclusion for each of the study populations. Include additional rows for categories/groups, as needed.**

| **Category/Group** (e.g., adults, parents) | **Inclusion Criteria:** | **Exclusion Criteria:** |
|---|---|---|
| Professional Choreographers | Have produced professional choreographic works, are currently or have previously owned/directed their own dance company, are creating work in the genre of contemporary dance | Outside the genre of contemporary dance, have not owned/directed their own dance company |
| Graduate Students | Currently pursuing a MFA in Dance, currently participating in a choreographic process | Are not pursuing an MFA in Dance, not currently engaging in a choreographic process |

**SECTION 5: PRE-SCREENING AND DETERMINING ELIGIBILITY WITHOUT INFORMED CONSENT**

☒ Not applicable: Identifiable information will not be obtained for the purpose of screening, recruiting, or determining eligibility of prospective subjects. **Skip to Section 6.**

1. **The 2018 Common Rule allows for pre-screening activities (i.e., determining if potential subjects may be eligible to participate in research) performed without the written informed consent of the prospective subject or legally authorized representative (LAR). This means that the IRB does not need to grant a waiver of consent.**

2. **Provide a complete list of the data points, variables, and/or information that will be collected during pre-screening (i.e. data abstraction form).**

☐ **Check here** if the list will be submitted as a separate document [i.e. case report form (CRF; eCRF)].

Variables or information required for pre-screening: **Type Here**

3. **Indicate the methods of pre-screening. Check all that apply.**

☐ Study team will obtain information through oral or written communication with the prospective subject (i.e. self-report of medical information; medical records will not be screened).

☐ Other pre-screening: **Type Here**

4. **When contacting subjects prior to enrollment, use a pre-screening script that meets the minimum recruitment requirements.**

5. **In addition, the pre-screening process must adhere to the following guidelines:**

   a. **Privacy: The script must address the case where someone other than the potential subject receives the communication. Please be mindful of privacy considerations (i.e., do not disclose any private information). Limit phone contact / messages to no more than 5 attempts.**

   b. **Expertise: Study team member/s contacting potential subject must be knowledgeable and able to answer questions related to the screening and the main study.**

   c. **Specific Information: Include a description of the information that will be obtained for the purpose of screening, recruiting, or determining eligibility and the reasons for performing the screening tests.**

   d. **Confidentiality: Include a statement that informs the potential subject that if they are not eligible to participate in the study that the identifiable information will not be used for research purposes and will be destroyed at the earliest opportunity consistent with conduct of the research.**

☐ Not applicable: Subjects will not be contacted for eligibility or recruitment purposes.

☐ **Maintain on file:** Pre-Screening Script which will follow the above guidelines.

**SECTION 6: RECRUITMENT METHODS**

☐ Not applicable: This study involves no direct contact with participants (i.e., passive observation of public behavior). **Skip to Section 7.**

**Indicate all methods that will be used to recruit subjects for this study.**

**IMPORTANT! Recruitment materials must adhere to UCI Recruitment Guidelines. Various templates are available here: Application and Forms → HRP → Recruitment Templates**

| Recruitment Method | Population | Required |
|---|---|---|
| ☐ Flyers/Brochures | ☐ All subjects **OR** specify cohort: | 1. **Develop and use:** Recruitment Materials<br>2. Specify where posted:<br>3. Type of space:<br>☐ Public (i.e., site/media that allows open access to content)<br>☐ Private (i.e., site/media that allows control of access to content) |
| ☐ Newspaper/Radio/ Television | ☐ All subjects **OR** specify cohort: | 1. **Develop and use:** Recruitment Materials<br>2. Specify where posted: |
| ☐ Online/Social Media | ☐ All subjects **OR** specify cohort: | 1. **Develop and use:** Recruitment Materials<br>2. Specify where posted:<br>3. Type of space:<br>☐ Public (i.e., site/media that allows open access to content)<br>☐ Private (i.e., site/media that allows control of access to content) |
| ☐ School of Social Ecology UCI Human Subject Pool | ☐ All subjects **OR** specify cohort: | ☐ **Check here** to confirm that applicable consent documents will include reference to the use of SONA. |
| ☒ Individual/Group/ Class Presentation | ☐ All subjects **OR** specify cohort: **Graduate Dance Students** | 1. **Develop and use:** Recruitment Materials<br>2. Specify where: **University of California, Irvine Main Campus** |
| ☒ Email/Postal Mail/ Phone | ☐ All subjects **OR** specify cohort: **Professional Choreographers** | 1. **Develop and use:** Recruitment Materials<br>2. Specify how contact information will be obtained: **Contact information will be obtained through publicly available sources including company websites and directories.** |
| ☐ Study team will contact potential subjects who have given prior permission to be contacted for research studies. | ☐ All subjects **OR** specify cohort: | 1. **Develop and use:** Recruitment Materials<br>2. Specify how these individuals granted permission:<br>3. HS#: |

| | | |
|---|---|---|
| ☐ Study team members will approach their own patients, students, employees. | ☐ All subjects **OR** specify cohort: | 1. ☐ **Check here** to confirm a statement attesting the below will be included in applicable recruitment and/or consent documents.<br>2. ☐ **Check here** to confirm that subjects will be:<br>b. Approached with the emphasis on the voluntary aspect of being on this study; and<br>c. Informed that no matter their decision, it will not affect:<br>✓ Their relationship with UCI<br>✓ How their doctor cares for them as a patient or their care at UC Health in general<br>✓ How their instructor grades their participation in the course |
| ☐ Colleagues provide subjects with information about the research and how to contact investigators | ☐ All subjects **OR** specify cohort: | 1. **Develop and use:** Recruitment Materials<br>2. ☐ **Check here** to confirm that colleagues may provide a copy of the consent and other materials but do not obtain subjects' consent for the research or act as representatives of the investigators. |
| ☐ Colleagues seek or obtain the subjects' permission for investigators to contact them | ☐ All subjects **OR** specify cohort: | 1. **Develop and use:** Recruitment Materials<br>2. ☐ **Check here** to confirm that colleagues may provide a copy of the consent and other materials but do not obtain subjects' consent for the research or act as representatives of the investigators. |
| ☐ Colleagues, who are treating physicians, will send UCI IRB approved recruitment letter to their patients. | ☐ All subjects **OR** specify cohort: | 1. **Develop and use:** Recruitment letter to be signed by the treating physician.<br>2. ☐ **Check here** to confirm that colleagues do not obtain subjects' consent for the research or act as representatives of the investigators. |
| ☐ Other recruitment methods | ☐ All subjects **OR** specify cohort: | Specify: |

## SECTION 7: INFORMED CONSENT PROCESS

### A. Methods of Informed Consent

| **Identify the consent or assent process as applicable for each participant population. Check all that apply.** | | |
|---|---|---|
| **Consent Process** | **Subjects** | **Required** |

| | | |
|---|---|---|
| ☐ No informed consent (no direct contact) | ☐ All subjects **OR** specify cohort: | |
| ☒ Oral/Implied informed consent (no signature) | ☒ All subjects **OR** specify cohort: | 1. **Develop and use:** Study Information Sheet<br>2. ☒ **Check here** for online consent and to confirm all of the following:<br>✓ A Study Info Sheet will be presented prior to administering research procedures,<br>✓ Subjects verify they meet the eligibility criteria,<br>✓ Subjects indicate their willingness to participate in the research (e.g., click "Yes") |
| ☐ Paper-based signed Informed consent | ☐ All subjects **OR** specify cohort: | **Develop and use:** Adult Consent Form |
| ☒ Electronically signed informed consent (eIC)/assent | ☒ All subjects **OR** specify cohort: | 1. **Develop and use:** Adult Consent Form<br>2. **Maintain on file:** All informational materials, including any videos and web-based presentations, which the subject will receive and view during the eIC process.<br>3. **Maintain on file:** Any optional questions or methods used to gauge subject comprehension of key study elements.<br>4. ☒ **Check here** to confirm the eIC process adheres to the OHRP guidance: Use of Electronic Informed Consent: Questions and Answers |

**B. Circumstances of Consent**

| **1. Indicate the location where the consent process will take place. Check all that apply.** |
|---|
| ☐ Private room ☐ Waiting room ☐ Open unit ☐ Group setting ☐ Internet<br>☐ Over the phone ☒ Other; specify: **Subjects will be emailed consent forms to review and sign.** |
| **2. Specify how the research team will assure that subjects have sufficient time to consider whether to participate in the research.** |
| 1. Describe assurance process: **Subjects will be provided with the Adult Consent Form prior to engaging in research. Subjects will not be asked to participate in research until they considered and signed the Adult Consent Form.**<br>2. Timeframe to consider consent: ☒ As much time as needed **OR** specify timeframe: **2 weeks** |

**3. Address whether deception or incomplete disclosure is involved.**

**IMPORTANT!** Per Federal regulations, the use of deception or incomplete disclosure may only be exempt (and considered for a Self Determination of Exemption at UCI) if the (prospective) subject authorizes the deception through a prospective agreement to participate in research in circumstances in which the subject is informed that he or she will be unaware of or misled regarding the nature or purposes of the research. If advanced disclosure is not possible, submit an Application to the IRB for Expedited review.

[X] Not applicable: No deception or incomplete disclosure is involved.

1. **Maintain on file:** Appendix G
2. **Develop and use:** Debriefing Script, as applicable
3. [ ] **Check here** to confirm that the consent document, discloses the use of deception or incomplete disclosure

**C. Special Subject Populations**

**4. If subjects may be vulnerable to coercion or undue influence (examples below), describe the procedures to ensure the voluntary participation of these individuals.**

- **Individuals who are economically or educationally disadvantaged**
- **Students (undergraduate, graduate, and medical students)**
- **Employees of UCI (administrative, clerical, nursing, lab technicians, post-doctoral fellows and house staff, etc.)**

[ ] Not applicable: Subjects in this study are not vulnerable to coercion or undue influence.

**Vulnerable subjects in this study include Undergraduate and Graduate students in the Dance Department at UCI. To ensure voluntary participation of these individuals, these individuals will be provided with a detailed consent form prior to partaking in this research. They will also be provided a statement from the researcher that a refusal to participate in this study will not be publicized, and will not affect their academic standing, future departmental opportunities, or reputation.**

**5. Will this study include Non-English Speaking Participants?**

[X] Only individuals who can read and speak English are eligible for this study. **Skip to Section 8.**

[ ] The English version of the consent materials will be translated for non-English speaking participants. An interpreter will be involved in the consenting process.

**6. Indicate how non-English speaking subjects will be consented in their language and who will be responsible for interpreting and facilitating the informed consent discussion for the non-English speaking subjects.**

**IMPORTANT! If study team members are responsible for obtaining informed consent from non-English speaking subjects, provide their qualifications to serve in this capacity (i.e. language fluency) in Section 2, as applicable.**

| |
|---|
| ☐ At least one member of the study team is fluent in the language that will be used for communication, and that study team member(s) will be available during emergencies.<br><br>☐ The study team has 24-hour access to a translation service with sufficient medical expertise to discuss the research in this study.<br><br>☐ Other; specify: |

**SECTION 8: RESEARCH PROCEDURES**

**A. Study Location**

**1. Specify where the research procedures will take place. Include additional rows for locations, as needed.**

**2. If research activities will be conducted at private non-UCI locations (e.g., educational institutions, community clinics, private social media), Letters of Permission or other documentation may be required.**

| Location | Required | Procedures |
|---|---|---|
| ☒ Physical Location e.g.,:<br>• Irvine High School<br>• UCI Douglas Hospital, Cardiac Care Unit<br>• UCI Main Campus, Hewitt Hall | 1. Specify: **UCI Main Campus, Mesa Arts Building**<br><br>2. **Maintain on file:** Letter(s) of permission for private non-UCI locations. | ☐ All procedures **OR** specify procedures: **Rehearsal Interventions** |
| ☒ Virtual Location e.g.,:<br>• Amazonturk<br>• Zoom<br>• Telehealth/Virtual Care | 1. Specify: **Zoom**<br><br>2. ☐ **Check here** to confirm that virtual location's privacy and use policies will be followed. | ☐ All procedures **OR** specify procedures: **Interviews with Professional Choreographers** |
| ☐ Other | 1. Specify:<br><br>2. **Maintain on file:** Letter(s) of permission for private non-UCI locations | ☐ All procedures **OR** specify procedures: |

**B. Research Procedures**

**1. Provide a detailed chronological description of all research procedures.**

**Beginning in December 2021, the researcher will contact a list of 10-12 professional choreographers to request interviews via zoom. These interviews will last approximately thirty minutes and take place from December 2021- February 2022. In October 2021, the researcher will begin attending rehearsals held by graduate dance students at UCI, to observe rehearsal processes and hold interventions. The researcher will contact 10 graduate student choreographers, with the intention of attending rehearsals for at least 5 choreographers. The researcher will attend 3 rehearsals per choreographer, at the beginning, middle, and end of the choreographic process. The intervention process will take place from October- December 2021.**

**2. List all procedures involving the use and/or collection of photographs, or audio/video recording.**

With consent from the interviewee, all zoom interviews will be recorded. This includes audio and video. During rehearsal interventions, the researcher will use an audio recording device to record questions answered by the choreographers.

3. **Specify the total duration of a subject's participation in the study.**

4. **Multiple Time Points: Clearly outline the duration of participation for each study visit and sub-study, as applicable.**

    a. **Specify the length of time and frequency between each visit, procedure, and study related follow-up.**

    b. **It is strongly recommended that a table of visits, tests and procedures be included. Tables are easier to understand and may help to shorten long repeated paragraphs throughout the narrative.**

For interviews, subjects will be contact one time via email beginning in December. If the subjects agree to participate in the interview, they will be contacted again via email to schedule a zoom interview and complete the consent form. The interview will take place one time, via Zoom, for approximately 30 minutes. The subject will be contacted following the interview to thank them for their participation, otherwise there will be not contact after the interview. If the subject does not respond to the initial email requesting an interview, they will be contacted a maximum of one more time, to ensure that they are unwilling to participate in the study.
Graduate dance student subjects participating in rehearsal interventions will be contacted in the beginning of October, via email, to access their interest in participating in the study. If the subjects are willing to participate in the study, they will be contacted a second time via email, to review the consent form and discuss scheduling. For each subject, the researcher will attend three live rehearsals over the course of their choreographic process. This will amount to a maximum of 6 hours, taking place from October to February. Once the interventions have been completed, the subjects will be contact once more to thank them for their participation in the study, otherwise they will be contacted to participate in the study again.

5. **List data collection tool (e.g., measures, questionnaires, observational tool). Include additional rows for study instruments, as needed.**

| Name of Tool | Standardized/validated |
|---|---|
| Interview Questions on Creative Process | [X] No: **Maintain on file:** Instrument<br>[ ] Yes; citation: **Type Here** |
| Type Here | [ ] No: **Maintain on file:** Instrument<br>[ ] Yes; citation: **Type Here** |
| Type Here | [ ] No: **Maintain on file:** Instrument<br>[ ] Yes; citation: **Type Here** |

**C. Secondary Research Using Identifiable Private Information**

[X] Not Applicable: The research does not involve the secondary use of identifiable private information. **Skip to Section 8.D.**

**1. Indicate the types/sources of identifiable private information.**

**IMPORTANT!**

- **When accessing/transferring data from a non-profit, please contact Grace J. Park at parkgj@uci.edu.**
- **When accessing/transferring data from a for-profit, please contact the Industry Contract Officer at UCI Beall Applied Innovation assigned to your department.**
- **When transferring tangible research material between organizations, please contact UCI Beall Applied Innovation at MaterialTransfer@uci.edu.**

| Information Source | Required |
|---|---|
| ☐ Identifiable photographs, images, or digital/audio/video recording | Specify: |
| ☐ Other records | Specify: |

**2. Indicate whether the information was originally collected for research purposes.**

| Original Collection | Required |
|---|---|
| ☐ Not originally collected for research. | Explain how the information was originally collected: **Type Here** |
| ☐ Collected for research under a UCI IRB approved protocol. | HS#: **Type Here** |
| ☐ Collected for research under a non-UCI IRB approved protocol. | 1. ☐ **Check here** to confirm the IRB approved consent form does not preclude the research.<br>2. **Maintain on file:** Copy of the IRB approval and consent form for the original research collection. |
| ☐ Collected for research by a commercial vendor. | 1. ☐ **Check here** to confirm the vendor's policy does not preclude the research.<br>2. **Maintain on file:** Copy of the Vendor Policy/Letter attesting that the sharing of biospecimen is ethical. |

**3. Provide a complete list of the data points, variables, and/or information that will be collected (i.e. data abstraction form).**

☐ **Check here** if the list is maintained as a separate document [i.e. case report form (CRF; eCRF)].

Variables or information: **Type Here**

**4. Specify the time-frame of the data to be accessed (e.g. January 2002 to 2024).**

**Type Here**

**D. Secondary Research Using Identifiable Biospecimens**

☒ Not applicable: The research does not involve the secondary use of identifiable biospecimens. **Skip to Section 9.**

**1. Indicate the source of the biospecimens and explain how the biospecimens will be obtained.**

**IMPORTANT! When transferring tangible research material between organizations, please contact UCI Beall Applied Innovation at MaterialTransfer@uci.edu.**

| Biospecimen Source | Required |
|---|---|
| ☐ UCI Experimental Tissue Resource (ETR): HS# 2012-8716 | |
| ☐ UCI IRB approved research. | HS#: Type Here |
| ☐ Commercial entity/vendor | Entity/vendor: Type Here |
| ☐ Other biospecimens source | Specify: Type Here |

**2. Indicate whether the biospecimens were originally collected for research purposes.**

| Original Collection | Required |
|---|---|
| ☐ Not originally collected for research. | Explain how the biospecimens were originally collected (e.g., clinical care): Type Here |
| ☐ Collected for research under a UCI IRB approved protocol. | HS#: Type Here |
| ☐ Collected for research under a non-UCI IRB approved protocol. | 1. ☐ Check here to confirm the IRB approved consent form does not preclude the research.<br>2. Maintain on file: Copy of the IRB approval and consent form for the original research collection. |
| ☐ Collected for research by a commercial vendor. | 1. ☐ Check here to confirm the vendor's policy does not preclude the research.<br>2. Maintain on file: Copy of the Vendor Policy/Letter attesting that the sharing of biospecimen is ethical |

## SECTION 9: RISK ASSESSMENT AND POSSIBLE BENEFITS

### A. Risks and Discomforts

**1. Describe and assess any reasonably foreseeable risks and discomforts associated with each procedure for each subject population — physical, psychological, social, legal or other.**

**2. If this study will involve the collection of identifiable private information, even temporarily, for which the disclosure of the data outside of the research could reasonably place the subjects at risk, include the risk of a potential breach of confidentiality.**

**A bullet point list is recommended.**

☐ See "Risks" section of the UCI consent document.

| |
|---|
| **3. Discuss what steps have been taken and/or will be taken to prevent and minimize the risks/potential discomforts indicated above associated with each procedure.**<br><br>**Examples include:**<br>• **designing the study to make use of procedures involving less risk when appropriate;**<br>• **implement security provisions to protect confidential information.** |
| **Type Here** |

**B. Certificate of Confidentiality**

[X] Not applicable: The research is not partially or wholly funded by NIH, including NIH Institutes and Centers.
**Skip to Section 9.C.**

| |
|---|
| **1. Indicate whether research is protected by a NIH Certificate of Confidentiality (CoC).** |
| [ ] This research is partially or wholly funded by NIH, including NIH Institutes and Centers. A CoC is automatically issued. |
| **2. Indicate in what situations identifiable private information protected by a CoC will be disclosed. Check all that apply.** |
| [ ] As required by Federal, State, or local laws, excluding instances of disclosure in any Federal, State, or local civil, criminal, administrative, legislative, or other proceeding. Some examples are laws that require reporting of child or elder abuse, some communicable diseases, and threats to harm yourself or others.<br><br>[ ] When necessary for the medical treatment of the individual to whom the information, document, or biospecimen pertains and disclosed with the consent of such individual;<br><br>[ ] Disclosed with the consent of the individual to whom the information, document, or biospecimen pertains;<br><br>[ ] Disclosed for the purposes of other scientific research that is in compliance with applicable Federal regulations governing the protection of human subjects in research. |

**C. Potential Benefits**

| |
|---|
| **Describe the potential benefits to society, and, if applicable, to the participant.**<br><br>**IMPORTANT! Compensation (i.e., gift cards, cash, course credit, etc.) is not a benefit.** |
| 1. Societal Benefit: **Type Here**<br><br>2. Participant benefit: **Type Here** |

**SECTION 10: ALTERNATIVES TO PARTICIPATION**

| |
|---|
| **Describe the alternatives to participation in the study available to prospective subjects.** |

[X] No alternatives exist. The only alternative to study participation is not to participate in the study.

[ ] Alternatives to earn extra course credit: [ ] Verified by SONA OR

[ ] Other alternatives to study participation:

**SECTION 11: PARTICIPANT COMPENSATION AND REIMBURSEMENT**

[X] Not applicable: No compensation or reimbursement. **Skip to Section 12.**

**1. Specify whether compensation is applicable and, if so, the method, amount and schedule of compensation. Check all that apply.**

**IMPORTANT!**

- **Compensation should be offered on a prorated basis when the research involves multiple sessions.**
- **Additional considerations are required when using lotteries, raffles, and drawings, see UCI Lottery Guidance.**
- **For compensation greater than or equal to $600, subject names and social security numbers must be collected. This information must be reported to UCI Accounting for tax-reporting purposes.**
- **For additional information about researcher's/department's responsibilities and current Accounting procedures, see UCI Policy Sec. 701-03.**

| Compensation Method | Schedule | Subject Population |
|---|---|---|
| [ ] Cash; specify amount: Type Here | [ ] After each study visit<br>[ ] At the end of study<br>[ ] Other; specify: Type Here | [ ] All subjects OR<br>specify cohort: Type Here |
| [ ] Check; specify amount: Type Here | [ ] After each study visit<br>[ ] At the end of study<br>[ ] Other; specify: Type Here | [ ] All subjects OR<br>specify cohort: Type Here |
| [ ] Gift Card; specify amount and retailer: Type Here | [ ] After each study visit<br>[ ] At the end of study<br>[ ] Other; specify: Type Here | [ ] All subjects OR<br>specify cohort: Type Here |
| [ ] Extra Credit; specify amount: Type Here | [ ] After each study visit<br>[ ] At the end of study<br>[ ] Other; specify: Type Here | [ ] All subjects OR<br>specify cohort: Type Here |
| [ ] Other; specify: Type Here | [ ] After each study visit<br>[ ] At the end of study<br>[ ] Other; specify: Type Here | [ ] All subjects OR<br>specify cohort: Type Here |

**2. Specify whether subjects will be reimbursed for out-of-pocket expenses. If so, describe any requirements for reimbursement (e.g., receipt).**

[ ] Not applicable: No reimbursement provided.

Specify reimbursement requirements: Type Here

**SECTION 12: CONFIDENTIALITY OF RESEARCH DATA**

**A. Information and/or Biospecimens Storage**

1. **Indicate how information and/or biospecimens (including signed consent forms) will be stored. Check all that apply.**
2. **Specify the storage location.**
3. **For enterprise cloud storage, select the location that adheres to the UCI Protection Level required for the research information.**
    a. **If storing data in location that that isn't tied to a UCInetID, the research data is not covered by UCI enterprise contracts.**

**IMPORTANT! For more information about best practices for electronic research data security, review the UCI Information Security website: Information and Resource Classifications.**

| Storage Method | Location |
|---|---|
| [X] Information will be maintained on a UCI enterprise cloud platform. | P1: Public data, low risk<br>P2: Internal data, medium risk<br><br>[X] Google Drive<br>[ ] Microsoft OneDrive<br>[ ] Microsoft Teams<br>[ ] Microsoft SharePoint |
| | P3: Proprietary data, high risk<br>P4: Statutory data, high risk<br><br>[ ] Microsoft OneDrive |
| [ ] Information will be maintained electronically. Information will be password protected and maintained in an encrypted format. | |
| [ ] Information will be maintained in hard copy. Information will be stored in a locked area that is not accessible to non-study team members. | |
| [ ] Biospecimens will be stored in a locked lab/refrigerator/freezer that is not accessible to non-study team members. | |
| [ ] Other method; specify: | |

**B. Subject Identifiers**

[ ] Not applicable: No subject identifiers will be collected or retained. **Skip to Section 12.D.**

1. **Will any subject identifiers be collected or retained for data analysis, recruitment, consenting and/or compensation?**

| | |
|---|---|
| [X] Names<br>[X] All elements of dates (except year) for dates that are directly related to an individual: birth date, admission date, discharge date, death date, and all ages over 89<br>[ ] All geographic subdivisions smaller than a state: street address, city, county, precinct, ZIP code, and geocodes<br>[ ] Telephone numbers<br>[ ] Vehicle identifier and serial numbers: license plate<br>[ ] Device identifiers and serial numbers<br>[X] Email addresses | [ ] Web Universal Resource Locators (URLs)<br>[ ] Social security numbers<br>[ ] Internet Protocol (IP) addresses<br>[ ] Medical record numbers<br>[ ] Biometric Identifiers: finger and voice prints<br>[ ] Health plan beneficiary numbers<br>[ ] Full-face photographs and any comparable images<br>[ ] Account Numbers<br>[ ] Any other unique identifying number, characteristic, or code; specify: **Type Here** |

**2. Will a code be used to link subject identifiers with the information and/or biospecimens?**

**IMPORTANT! Retaining identifiers and information/biospecimens together increases the risk to participants and requires additional justification.**

[X] A code will not be used. Subject identifiers will be kept separately from the information/biospecimens.

[ ] A code will be used. Subject identifiers will be kept separately from the information and/or biospecimens. The code key will be destroyed at the earliest opportunity, consistent with the conduct of this research. **IMPORTANT!** Research that is Exempt Category 4ii may not use a code.

[ ] A code will not be used. Subject identifiers will be kept directly with the information/biospecimens; address the following:

1. *Rationale*: **Type Here**
2. *Specify how identifiers are attached:* **Type Here**

**3. If subject identifiable data/biospecimens will be transported or maintained on portable devices (e.g., laptop, smartphone, external hard drive, etc.) specify the device or method of transportation and explain why doing so is necessary.**

**IMPORTANT! Only the "minimum data necessary" should be stored on portable devices or transported as doing so makes it susceptible to loss or theft. If there is a necessity to use a portable device, the research files must be encrypted, and subject identifiers transferred to a secure system as soon as possible. If transporting data/biospecimens the method of transport must be secure.**

[X] Not applicable: Research data/biospecimens will not be transported or maintained on portable devices.

1. Specify device(s)/method(s) of transportation: **Type Here**
2. Provide rationale: **Type Here**

**4. Specify who will have access to subject identifiable information/biospecimens as part of this study. Check all that apply.**

| | |
|---|---|
| ☐ | Not applicable: No subject identifiers will be collected. |
| ☒ | Authorized UCI personnel such as the research team and appropriate institutional officials such as the Office of Human Research Protections (OHRP) Regulatory entities such as the Food and Drug Administration (FDA), the National Institutes of Health (NIH) |
| ☒ | Study sponsor or the sponsor's agents |
| ☐ | Other: **Type Here** |

**5. Specify whether subject identifiers be disclosed in presentations and/or publications.**

| | |
|---|---|
| ☐ | Subject identifiers will not be disclosed. |
| ☒ | Subject identifiers will be disclosed. Text regarding the disclosure will be included in the consent document and specific permission to disclose will be discussed with subjects. |

**6. Specify how long all subject identifiers will be retained. This includes identifiers stored in paper format, stored electronically as well as video recordings, audio recordings, photographs, etc.**

**IMPORTANT! Investigators must destroy PHI at the earliest opportunity, consistent with the conduct of this study, unless there is an appropriate justification for retaining the identifiers or as required by law.**

| | |
|---|---|
| ☐ | Destroyed after data collection. |
| ☐ | Destroyed after compensation. |
| ☐ | Destroyed after data analysis. |
| ☒ | Destroyed after publication/presentation or end of study. |
| ☐ | Maintained indefinitely; rationale: **Type Here** |
| ☐ | Other; specify time frame and provide rationale: **Type Here** |

**C. Collection of Photographs, or Audio/Video Retention & Recording**

☐ Not applicable: No collection or use of photos or audio/video recordings. **Skip to Section 12.D.**

**1. If subject identifiable audio recordings will be collected, specify the timeframe for the transcription, as applicable, or indicate why data will not be transcribed. If recordings will be transcribed, specify whether this will be performed by the study term or a transcription service.**

☐ Not applicable: No identifiable audio recordings collected.

| Transcription Options | Required |
|---|---|
| ☐ Identifiable audio recordings will not be transcribed. | Rationale: |
| ☒ Identifiable audio recordings transcribed by the study team. | Timeframe: **Recordings of zoom interviews and rehearsal interventions will be transcribed within 2 weeks of the interview or intervention taking place.** |
| ☐ Identifiable audio recordings transcribed by a transcription service. | Service: |
| **De-Identification Options** | **Required** |
| ☒ Identifiable audio recordings will not be de-identified. | Rationale: Subjects will provide consent, via the consent, before the study takes to be identified in audio recordings. |
| ☐ Identifiable audio recordings will be de-identified. | 1. Timeframe:<br>2. How: |

**2. If subject identifiable video recordings will be collected, specify the timeframe for the transcription, as applicable, or indicate why data will not be transcribed. If recordings will be transcribed, specify whether this will be performed by the study term or a transcription service.**

☐ Not applicable: No identifiable video recordings collected.

| Transcription Options | Required |
|---|---|
| ☐ Identifiable video recordings will not be transcribed. | Rationale: |
| ☒ Identifiable video recordings transcribed by the study team. | Timeframe: Video recordings of zoom interviews will be transcribed within two weeks of the interview taking place. |
| ☐ Identifiable video recordings transcribed by a transcription service. | Service: |
| **De-Identification Options** | **Required** |
| ☒ Identifiable video recordings will not be de-identified. | Rationale: Subjects will provide consent, via the consent form, prior to the study to be identified in video recordings. |
| ☐ Identifiable video recordings will be de-identified. | 1. Timeframe:<br>2. How: |

**3. If subject identifiable photographs will be collected, describe de-identification of photos, as applicable or indicate why photographs will not be de-identified.**

X Not applicable: No subject identifiable photographs collected.

| De-Identification Options | Required |
|---|---|
| ☐ Identifiable photographs will not be de-identified. | Rationale: |
| ☐ Identifiable photographs will be de-identified. | 1. Timeframe:<br>2. How: |

**D. Research Information and/or Biospecimens Retention**

**Indicate how long research information/biospecimens will be retained.**

X In accordance with UCOP policy, information/biospecimens will be retained for 10 years after the end of the calendar year in which the research is completed, unless otherwise specified in the award agreement.

☐ In addition, if the research involves the investigation of FDA regulated products, information/biospecimens will be retained for two years after an approved marketing application. If approval is not received, the information/biospecimens will be kept for 2 years after the investigation is discontinued and the FDA is notified per FDA sponsor requirements.

☐ This research includes the potential for future secondary research using information/biospecimens which will be stored and maintained indefinitely.

☐ Other; specify time frame and provide the rationale:

**E. Information/Biospecimens Sharing**

X Not applicable: No information and/or biospecimens shared. **End of form.**

**1. Will information/biospecimens be shared with other researchers outside of the study team for purposes within the scope of the current study?**

- **When transferring data to a non-profit, please contact Grace J. Park at parkgj@uci.edu.**
- **When transferring data to a for-profit, please contact the Industry Contract Officer at UCI Beall Applied Innovation assigned to your department.**
- **When transferring tangible research material to an organization, please contact UCI Beall Applied Innovation at MaterialTransfer@uci.edu.**

**IMPORTANT! If disclosing subject identifiers in publications, text regarding the disclosure must be included in the consent document and specific permission to disclose will be discussed with subjects and obtained via a Release Form.**

| Sharing Options | Required |
|---|---|
| ☐ Only de-identified information/biospecimens shared (i.e. research subjects cannot be identified by other researcher). | ☐ **Check here** to confirm that study team will remove all of the identifiers listed in Section 12.B.1 prior to distribution. |
| ☐ Identifiable information/biospecimens Shared. | 1. Researcher/entity: **Type Here** |

| | |
|---|---|
| | 2. List of all identifiers to be shared: **Type Here**<br>3. Rationale to share identifiers: **Type Here**<br>4. ☐ **Check here** to confirm that all appropriate data use agreements will be finalized before sharing. |

**2. Will information and/or biospecimens be shared, used again, or stored for undefined future research purposes beyond the scope of the current study?**

- **When transferring data to a non-profit, please contact Grace J. Park at parkgj@uci.edu.**
- **When transferring data to a for-profit, please contact the Industry Contract Officer at UCI Beall Applied Innovation assigned to your department.**
- **When transferring tangible research material to an organization, please contact UCI Beall Applied Innovation at MaterialTransfer@uci.edu.**

☐ Not applicable: No information and/or biospecimens shared beyond the scope of the study.

1. ☐ **Check here** to confirm that all appropriate data use and/or materials transfer agreements will be finalized before sharing.

2. Check one of the following:

| Biorepository Options | Established and Managed by | Required |
|---|---|---|
| ☐ No subject identifiers are collected (i.e. information/biospecimens cannot be linked to an individual). | ☐ UCI study team<br>☐ Non-UCI entity | Non-UCI Entity: |
| ☐ No subject identifiers will be retained by the study team beyond initial collection (i.e. identifiers/code destroyed after initial collection). | ☐ UCI study team<br>☐ Non-UCI entity | Non-UCI Entity: |
| ☐ Subject identifiers will be retained by the study team beyond initial collection (i.e. information/biospecimens can be linked to an individual; key code exists). | ☐ UCI study team | **Maintain on file:** Appendix M |
| | ☐ Non-UCI entity | Specify: |

# APPENDIX B: PARTICIPANT RECRUITMENT FORM

Dear <Addressee and Prospective Subject>,

My name is Kelly McGill and I am a MFA candidate in the Dance Department at the University of California, Irvine. Under the direction of Thesis Advisor, Lisa Naugle, I am conducting research tentatively titled, Creativity and Creative Problem Solving in the Choreographic Process. This thesis research will focus on comparing definitions of creativity from the field of psychology and the Creative Problem Solving Model to the act of dance making. This thesis research will help determine where and how creativity and problem solving are used in the choreographic process.

As a [Insert: graduate student choreographer/ faculty choreographer/ or professional choreographer and company director], your experience and perspective would make a valuable contribution to this research. Therefore, I am writing to ask if you would be a participant for my thesis project research.

As a participant in this study you would participate in a short interview regarding your creative process. Interviews will be held via zoom or telephone and will last no more than 30 minutes. As an interviewee, you will be asked ten questions regarding creativity and your choreographic process. The interview will begin after January 1st, 2022 and scheduled at your convenience.

As part of participating, I will also request your permission to record Zoom or voice recording of the interview for the purpose of transcribing and possible inclusion in my thesis paper.

If you are interested in participating in this thesis study or would like more information regarding this research please contact me by responding to this email or by phone at: (607)760-5836.

Thank you very much for your time. I look forward to hearing from you.

Sincerely,

Kelly McGill

# APPENDIX C: STUDY INFORMATION SHEET

**University of California, Irvine**
**Study Information Sheet**

***Creativity in Choreographic Process***

**Lead Researcher**
Kelly McGill, Graduate Student
Dance Department
Phone: (607)760-5836
Email: mcgillk@uci.edu

- Please read the information below and ask questions about anything that you do not understand. A researcher listed above will be available to answer your questions.

- You are being asked to participate in a research study. Participation in this study is voluntary. You may choose to skip a question or a study procedure. You may refuse to participate or discontinue your involvement at any time without penalty or loss of benefits. You are free to withdraw from this study at any time. **If you decide to withdraw from this study you should notify the research team immediately**.

- We would like to interview you to learn more about creativity and creative problem solving in your choreographic process. The interview will last about 20-30 minutes.

- Possible risks/discomforts associated with the study are inquiries into personal information such as name, occupation, or professional experience.

- There are no direct benefits from participation in the study. However, this study may explain how choreographers approach creativity in dance-making.

- *Participants will not be compensated for this study.*

- All research data collected will be stored securely and confidentially on the personal hard drive of the lead researcher. Video and audio files will be transcribed two weeks after the interview takes place. Video and audio files, and transcripts will be destroyed upon completion of the written thesis on May 30, 2022.
-
- *Future Research Use:* Researchers will use your information to conduct this study. Once the study is done using your information, we may share them with other researchers so they can use them for other studies in the future. We will not share your name or any other private identifiable information that would let the researchers know who you are. We will not ask you for additional permission to share this de-identified information.

- Questions? If you have any comments, concerns, or questions regarding this study please contact the researchers listed at the top of this form.

- If you have questions or concerns about your rights as a research participant, you can contact the UCI Institutional Review Board by phone, (949) 824-6662, by e-mail at IRB@research.uci.edu or at 141 Innovation, Suite 250, Irvine, CA 92697.

  **What is an IRB?** An Institutional Review Board (IRB) is a committee made up of scientists and non-scientists. The IRB's role is to protect the rights and welfare of human subjects involved in research. The IRB also assures that the research complies with applicable regulations, laws, and institutional policies

# APPENDIX D: INTERVIEW QUESTIONS

### *Interview Questions*

1. How do you define creativity?
2. In your opinion, what makes a process creative?
3. Describe your creative process (as it relates to choreography).
4. What is the first step of your choreographic process?
5. What does generation of material look like in your process?
6. What does development of material look like?
7. How do you make decisions about the internal structure of a work?/What is your structuring process?
8. What inspires you to create a new work?/ Where does your inspiration come from?
9. Of the four stages of the Creative Problem Solving Model below, Which do you have the strongest preference for?
    a. Develop: Development of ideas
    b. Ideate: Generation of ideas/brainstorming phase
    c. Implement: Putting ideas into practice
    d. Clarify: Clarifying the problem to be solved
10. Describe the role of the dancers (when applicable) in your creative process. How do they contribute to the process?