Creative Flow in the Art Room

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Abstract

This art-based research study addresses the relevance of Mihalyi Csikszentmihalyi's flow theory to the author's teaching practice in secondary art education. Following the discussion of literature pertaining to the cognitive and mental health benefits of flow experience, the teacher-researcher collects data throughout the process of creating art exercises and a series of five conceptual paintings. The results reveal correlations between specific activity parameters and flow occurrence, forming key insights for application in the teacher's classroom. Core findings emphasize artistic confidence, improvisation, flexibility of activity parameters, student choice, and process focus as art-specific pedagogical practices that encourage creative flow.

Keywords: creative flow, flow theory, flow in education, art education, art-based research

Creative Flow in the Art Room

Introduction

The benefits of art education stretch far and wide. Beyond the innate satisfaction of creating beautiful objects, the artistic process challenges us to communicate through material, generate unique solutions, perceive nuance, and think critically about the world we live in. Though it is impossible to encapsulate the vast learning capacity of the creative process, the National Core Arts Standards emphasize the holistic development of artistic skills through creating, presenting, responding, and connecting (National Coalition for Core Arts Standards, 2015). This shift away from sheer aesthetic values points towards the growing acknowledgment that art can be a vessel for personal development, cultural understanding, and social change.

My action research will explore the lasting personal benefits that can be obtained through focused engagement with art-making. The experience of heightened focus and joyful immersion, termed by psychologist Csikszentmihalyi as “flow” (1990), can lead to positive cognitive and social-emotional health outcomes that are in great need for my high school students. In this introductory chapter, I will share my relationship with creative flow, the growing concerns for adolescent mental health, and why I believe in the importance of flow experiences in the art room.

My Story

My passion for art education began with my experience as a student. I can vividly recall the comforting sense of relief I felt as a teenager entering the high school art classroom. At a time when life felt confusing and out of my control, art class provided a productive avenue for sorting emotions, responding creatively to challenges, and piecing together my evolving identity.

Whether the task was to paint in a monochromatic color scheme or make a creature out of paper mache, my attention sharpened in the physical experience, and I became immersed in a state of calm reflection and acceptance. Creating art brought a peaceful self-assuredness that was vital to my developing mind.

Art class was often my only reason for showing up to school. When my poor attendance in core classes resulted in failing grades, I found myself completing credit recovery worksheets in a crowded summer school classroom. As I looked around at my struggling peers, I reached a profound realization: I wanted to get more out of my education. That fall, I was enrolled full-time at the local community college with a fierce motivation to earn a degree in Art. Two years later, I transferred to San Francisco State University as a Studio Art major. As I jumped between courses in sculpture, painting, digital video, and textiles, I was reacquainted with the purposeful energy and inspiring atmosphere of the art classroom. I relished the experience of making art in a communal studio and anticipated class critiques with genuine glee. I wanted a career that would keep me in this space. I decided to shift my major and earned a Bachelor of Art in Art Education in 2012. For several years, I gathered teaching experience in a variety of learning environments, including special education classrooms, art museums, and edible school gardens. In each of these roles, I found myself leaning on the power of arts integration as a pathway for students to cement knowledge and express understanding. Eventually, my lasting empathy for the teenage experience led me to pursue a single-subject art credential. In 2018, I secured my dream position as a high school art teacher in a rural community in the Sierra Nevada foothills of California.

In the earliest years of my teaching, I had big concerns about how the art program might be perceived by school administrators, colleagues, and the community at large. My developing curriculum focused on skills that would result in the creation of beautiful works of art. While students were gaining knowledge in technique and design, I noticed missed opportunities for gleaning positive insights and personal growth from the creative process. I wanted my students to have a more empowering and meaningful art class experience. With hopes to improve all aspects of my instruction, I began to pursue a Master of Arts in Art Education from the Art of Education University (AOEU) in my third year of teaching. My graduate coursework helped me gain media-specific instructional strategies, develop a more student-centered curriculum, and bring the focus back to supporting creativity and personal growth through art-making.

In peer discussions for the AOEU course, "Studio: Painting (Acrylic and Tempera)," I was introduced to the psychological concept of "flow" as studied by psychologist Mihaly Csikszentmihalyi. According to Csikszentmihalyi (1990), flow is experienced when a person becomes so immersed in an activity (whether it be drawing, playing an instrument, exercising, or gardening) that they reach heightened states of awareness, enjoyment, and intrinsic motivation. Learning more about the foundational principles of flow theory, I felt clarity about aspects of my own experience with flow: the sense of peaceful presence, moments of intuitive insight, and quieting of the inner critic while art-making. However, these descriptors seemed to contrast with what I observed in my students. When considering their holistic growth, I noticed a significant struggle in my students' abilities to sustain focus, generate original ideas, persist through the meandering creative process, and connect art-making to personal meaning. I became curious about possible correlations between these struggles and my students' increasing engagement

with social media and the larger digital world. Reflecting on my excessive attachment to my smartphone, I wondered how creative flow might serve as an antidote to screen time.

In the AOEU course, "Art Therapy for Art Teachers," I continued to explore how the visual-tactile process of creating art can encourage positive mental states and relaxation (Martin & Colp, 2022). These ideas have motivated me to investigate the requirements and benefits of the flow experience as it connects to visual art education. I want to explore how awareness of the creative process and engagement with art-making can lead to expanded attention, emotional intelligence, and other cognitive skills (Sylwester, 1998). I am eager to learn about instructional strategies and project parameters that will encourage my students to experience art-making as a means for relaxation, fulfillment, and self-discovery. Ultimately, I want to increase student access to the cognitive and mental health benefits of art-making, which continue to impact my life.

Rationale and Problem Statement

In my work with high school students over the past five years, I have observed an increase in behaviors associated with stress and anxiety. Many of my students struggle to find motivation, concentrate, maintain focus, and exercise patience in the learning process. While there are certainly multiple contributing cultural and environmental factors, a significant correlation exists between the prevalence of anxiety among adolescents and the increase in compulsive smartphone use (Elhai et al., 2020; Fauzi et al., 2021). As students spend more time engaging with the online world, they become accustomed to its fast-paced visual format and ease of access to information. This can be a jarring contrast to the slow, winding, and ambiguous creative processes that happen in the art room. In acknowledging the harmful social and

emotional impacts of excessive smartphone use, education plays an essential role in facilitating hands-on learning in physical and communal learning environments (Fauzi et al., 2021).

Art education is often recognized for its capacity to foster social-emotional learning and improve mental health (Martin & Colp, 2022; Omasta et al., 2021). Through exposure to diverse artists and project parameters that allow unique responses, art education can provide students with opportunities for authentic community connections and the cultivation of personal identity (Gude, 2007). While the potential to integrate social-emotional learning stretches to all corners of art education, my research endeavor narrows its focus on the individual's experience in the action of art-making. When an artist becomes engrossed in their work, a period of heightened attention and intuitive presence is linked to enhanced cognitive functions and emotional intelligence (Campbell, 2011; Sylwester, 1998). In Csikszentmihalyi's (1990) foundational research on flow theory and positive psychology, he identifies necessary requirements for initiating the flow experience, such as an appropriate balance between skill and challenge. My research will explore possible applications and effects of these conditions within the context of secondary art education.

Building on the principles of flow theory, I aim to develop a deeper understanding of the cognitive mechanics present during the artistic process. Specifically, I will study the occurrence of personal insight, intuition, and related inner growth unique to creative engagement (Chilton, 2013). I will also examine the association between flow, social media user experience, and smartphone addiction (Kara, 2021; Zhang et al., 2014; Zhao & Wagner, 2023). Recognizing that compulsive internet use can be a coping strategy to distract from anxiety and depression (Fauzi

et al., 2021), I hope to explore how accessing creative flow through visual art-making may serve as a positive alternative to screen time.

This research endeavor connects to my mission as an art educator. In addition to a deeper understanding of art's important role in society, I want my students to gain a long-lasting relationship with creative practice. By widening access to flow experience in the art room, I hope that students will come to know art-making as a tool for self-care, expression, and intuitive insight. If my instruction can help illuminate the personal benefits of creating art, my students will be more likely to make space for creative practice in their lives beyond high school.

This capstone project will take the form of art-based research. In reviewing relevant literature, keeping a visual journal, and creating a series of artworks, I seek to answer my action research question: "How can an understanding of the creative flow experience improve my teaching practice?" Acknowledging that the subjective and intuitive nature of artistic expression can lead to unique, unexpected, and personally meaningful insights (Shipe, 2016), I will use visual journaling to process new understandings. Specifically, I will experiment with various materials, techniques, and artistic strategies, determining potential impacts on access to creative flow. Possible explorations may include the use or absence of reference imagery, direct observation, abstraction, color schemes, conceptual themes, composition, and improvisation. Steered by the visual journaling process, I will develop plans for a series of five artworks that embody my new knowledge and encourage my experience of flow through their creation. As I complete the artwork, I will continue to use visual journaling to reflect on my process and draw authentic connections back to my students, my teaching practice, and my relationship to art-making.

Key Terms

Cognition

Functions of the brain involving thinking, knowledge, awareness, and sensory experience (Doyle, 2017).

Flow

Psychologist Csikszentmihalyi (1990) identified "flow" as an experience of heightened attention, intense enjoyment, and inner harmony occurring when a person becomes immersed in a challenging activity appropriate for their skill level.

Inner Critic

A psychological term referring to an internal voice expressing doubt, disapproval or irritation with oneself. The inner critic can interfere with cognitive and mental health. In descriptions of flow experience, the inner critic is absent (Csikszentmihalyi, 1990).

Insight

A meaningful, unexpected idea emerges abruptly after a period of planning or incubation. Insights can be experienced during creative flow (Doyle, 2017).

Intrinsic Motivation

The drive to engage in a task for the sole enjoyment of the action required, rather than future external gains associated with the task. Csikszentmihalyi (1990) describes intrinsic motivation as an "autotelic experience" (p. 67).

Intuition

A natural awareness of deeper meaning that does not rely on logic. Johnson (2015) identifies three kinds of intuition: rational (sudden ideas or solutions emerging from knowledge),

predictive (a guess or speculation based on incomplete information), and transformational (awareness that arrives from a source outside of oneself.)

The Self

A conscious understanding of one's individual identity and its related attachments to goals, wants, needs, habits, and personal history (Csikszentmihalyi, 1990).

Conclusion

In an information-saturated and increasingly digital world, my students deserve an art class experience that calms their nerves, inspires their imagination, and ignites the important work of self-exploration through hands-on learning. This Capstone project will examine how knowledge of flow experience and the cognitive/emotional functions of art-making can enhance my teaching practice. Through the art-based research process, I will explore possible applications for the conditions of flow theory within the context of the high school art classroom. I will use visual journaling as a means of reflection and idea generation. Finally, I will create a series of artworks that embody my new understanding of creative flow as it relates to my students and my teaching. This effort is guided by my intention to increase students' positive mental health outcomes, emotional intelligence, and connection to intuition as a result of art-making. In the next chapter, I will examine the existing literature surrounding flow theory and its connections to visual art, education, smartphone addiction, cognition, intuition, and self-discovery.

Literature Review

A balanced education provides students with opportunities for inward and outward learning. As information is grasped across academic subjects, the art curriculum can allow students to integrate knowledge about the world into their personal understandings of culture and identity (Gude, 2007). Though the high school art room is an appropriate place for self-development and social-emotional learning, students struggle to maintain focus and motivation within the creative process. Considering the increased reliance on smartphones in our society, it is worth acknowledging the possible correlation between screen time and student engagement. Several studies point to the negative effects that excessive smartphone use can have on cognitive and emotional health (Elhai et al., 2020; Zhao & Wagner, 2023). Because focused attention is a requirement for learning (Sylwester, 1998), teaching requires a deeper understanding of what attracts, supports, and sustains student focus. For art educators who aim to encourage personal growth, it is beneficial to consider how smartphone fixation relates to the possibility of heightened engagement in the art-making process.

The immersive experience of intense concentration, whether painting on canvas or scrolling through social media, has been linked to the concept of psychological flow. Since its inception by psychologist Mihaly Csikszentmihalyi in 1975, flow theory has been at the core of an ever-expanding body of research connecting intrinsic motivation, optimal performance, and a variety of activities (Piefer et al., 2022). Though compulsive smartphone use points to the potential for flow to harness addiction (Kara, 2021), the flow experience has also been connected to lasting positive benefits in cognitive and emotional health (Csikszentmihalyi, 1990). This literature review will focus on research surrounding the cognitive inner workings of flow

experience, the personal growth possible through creative practice, and the potential implications and supports for creative flow within the context of the high school art classroom.

The Mechanics of Flow Theory

When considering the possible benefits of flow experience in art education, it is necessary to pinpoint what flow is. Mihaly Csikszentmihalyi (1990), a pioneer in the field of positive psychology, defined “flow” as the experience of heightened concentration and intense enjoyment that can occur through total immersion in an activity. Csikszentmihalyi's foundational work associates flow with the optimization of life experience: a sense of joy and harmonious alignment between the self, the present moment, and the activity. In his extensive studies of mountain climbers, surgeons, sailors, and more, Csikszentmihalyi discovered that flow can occur in a wide scope of tasks and occupations (Piefer et al., 2022). Across the various activities, common conditions are required for flow to be reached. First, the challenge of the activity must require a skill level that is feasible for the individual. Second, the person should be aiming toward an attainable goal. Third, the activity should provide instantaneous feedback, reinforcing the individual’s progress (Abuhamdeh, 2020; Csikszentmihalyi, 1990). Though there are inconsistencies in flow theory research findings, the balance of challenge and skill level is heavily supported (Peifer et al., 2022). If the challenge of the activity is higher than the person’s skill level, the individual may feel anxious and overwhelmed. If the challenge is lower than the person’s skill level, they may feel bored and distracted. When the challenge matches the skill level, the enjoyment of immersive engagement occurs, leading the person to experience the intrinsic rewards of embodied presence. This encourages the individual to keep going. As the person gains experience in the activity, their skill level shifts higher, and the challenge of the

activity must rise for flow to persist. Csikszentmihalyi (1990) attributed the expansion of consciousness and the elevation of performance to this relationship between challenge and skill. Students may relate these flow conditions to the feeling of "being in the zone" during activities such as exercising, playing an instrument, or solving a puzzle. No matter the activity, this primary understanding emphasizes the need for an appropriate level of challenge to reach heightened engagement.

In addition to the conditions required for flow to be reached, Csikszentmihalyi (1990) distinguished characteristics commonly present during the experience. Significant concentration is focused on the action of the task. The individual's attention is brought effortlessly to the activity, thereby turning away from pre-existing worries or concerns. The person recognizes that they have control over what they are doing. The immersive nature of the experience results in a lack of self-consciousness and a distortion of the perception of time. Researchers have connected this heightened level of engagement to the elevation of skills, meaningful insights, and intrinsic motivation (Abuhamdeh, 2020; Banfield & Burgess, 2013; Csikszentmihalyi, 1990; Warren, 2006). These positive effects can potentially meet a wide range of needs among individuals. As an adolescent student juggles the development of their identity, emotional intelligence, and interpersonal skills, flow experiences may provide healthy opportunities to gain confidence and resilience.

The connection between flow experience, improved performance, and greater quality of life has encouraged decades of research across a vast breadth of disciplines (Peifer et al., 2022). Despite the increasingly wide scope of flow research, Abuhamdeh (2020) recognizes inconsistency in the functional understanding of flow experience. Among 42 peer-reviewed

articles published between 2015 and 2020, three points of variability are evident: the definition of flow as a discrete and rare versus continuous and fluctuating state, the emphasis on enjoyment when signifying flow, and the division or merging of flow requirements and characteristics (Abuhamduh, 2020). The author argues that Csikszentmihalyi's operational definitions of flow experience should hold the highest validity, that flow is a discrete concept (a person either is or is not in flow), that enjoyment is a core component of flow, and that the conditions for flow (skill/challenge balance, goals, and feedback) should be distinct from the characteristics (concentration, lack of self-consciousness, etc.) of the experience. Additionally, Abuhamduh (2020) recognizes that while the specificity of Csikszentmihalyi's definition may cause the qualifying instances of flow to narrow, it would be impossible to draw an objective line between any individual's experiences of flow and non-flow. The author suggests that it is more useful for each individual, with an understanding of flow's conditions and characteristics to qualify their experiences. Other researchers have recognized the variety in flow theory conceptualizations and settled on a definitive understanding that will enable their investigations in their respective areas to deepen and evolve (Banfield & Burgess, 2013; Doyle, 2017). It may also be helpful to consider relevant mind states that share characteristics with flow: task involvement and intrinsic motivation (Abuhamduh, 2020). These behavioral constructs are certainly relevant to the world of education. Though the interpretations of flow may vary, specific insights can be gleaned from differing studies. To maximize awareness of possible connections between flow experience and art education, this literature review will remain open to the full scope of flow conceptualization in the existing research.

Creative Flow

Though the implications of flow theory have been studied across a wide breadth of activities, flow research within the context of the creative process is somewhat new. In a study exploring the cognitive functions of "creative flow" (the experience of flow through visual and performing art forms), Doyle (2017) identifies key differentiations. Where Csikszentmihalyi (1990) distinguished the conditions for flow as skill/challenge balance, goal clarity, and consistent feedback, Doyle argues that creative flow does not require specific goals or feedback. Similarly, psychologist Genevieve Cseh (2017) points to artists' perceptions of obscure and indistinct goals as welcome opportunities for investigation and unique insight. This idea aligns with the willingness of artists to tolerate ambiguity (Eisner, 2002; Johnson, 2015) and the interplay between structure and spontaneity in the creative process. Rather than a specific goal, creative flow is often fueled by the artist's intention to reorganize knowledge and make something new and meaningful (Doyle, 2017). While creative flow persists, so does the presence of ambiguity in the artist's perception of progress, wavering between conscious and intuitive reinforcement. The subjective nature of artistic success limits the clarity of feedback and self-monitoring, highlighting the need for more research in the area of evaluation's effects on creative flow (Cseh, 2016). These distinctions are relevant to art education because goal-setting and progressive feedback are standard practices in the art room. Students may be required to identify specific goals and consider evaluations from teachers and peers. If the design of an activity aims to encourage creative flow, these nuanced effects of goals and feedback are important to consider.

In order to take a closer look at the possibility of flow experience through creative activity, it is important to consider creativity as a process that includes various modes of thinking. The Wallas Model of Creativity identifies four stages in the creative process: preparation, incubation, illumination, and verification (Johnson, 2015). Though the potential for spontaneous flow is present in any one of these stages (Doyle, 2017), its occurrence often relies on the foundations of skill development, planning, problem-solving, and decision-making. In her studies with fine artists and graphic designers, Cseh (2016) recognizes the artists' important steps of deciphering between worthwhile and unproductive ideas, helping to make flow more likely during creative execution. Similarly, Doyle (2017) states that creative flow can occur effortlessly during incubation after a period of deliberate preparation. This idea contrasts the common misconception that moments of intense creative insight emerge as random and isolated events. Rather, the experience of creative flow occurs within the context of a larger process involving failed attempts, problem-solving, and analysis (Cseh, 2016; Dietrich, 2004). When a person is struggling to reach flow at the onset of their creative endeavor, it is important to normalize the presence of missteps, roadblocks, and redirection. The ease of artistic enjoyment may be waiting on the other side of trial and error.

The artist's willingness to tolerate ambiguity and persist through the murky waters of the creative process may relate to their perception of artistic control. Csikszentmihalyi (1990) refers to a "paradox of control" (p. 59) in which the individual experiencing flow recognizes their control in the activity while simultaneously feeling out of control in their sense of effortless activation. Cseh (2017) adds to this idea, stating that while creators do not often claim full control of where their ideas will take them, they commonly believe that their process will head

them in the right direction. In a survey of creatives from multiple disciplines, two-dimensional artists described the feeling of handing over control to the physical artwork itself and finding meaning in the materiality of the process (Banfield & Burgess, 2013). The physical creation of the artwork and mental formation of meaning reflect the merging of mind and body occurring in creative flow. Banfield and Burgess (2013) stress the equal importance of synchronized thinking and acting to sustain creative flow. This fusion of mental and physical activity through art-making connects back to the maximized engagement and absence of worries Csikszentmihalyi (1990) characterized as flow. The next section of this literature review will explore ongoing research on the neurocognitive functions of flow experience and their behavioral links to attention, distraction, motivation, and enjoyment.

Neurocognition and Flow

In his original studies on flow theory, Csikszentmihalyi (1990) identified a correlation between focused attention during an activity and the concurrent decrease in negative thinking patterns. This shift in information processing has been explored in several studies about the brain's activity during flow. Dietrich (2003) was the first to explain the relationship between automaticity (effortless participation) and decreased self-consciousness through the "transient hypofrontality hypothesis" (p. 249). His work theorized that the prefrontal cortex (with its connections to memory, decision-making, and self-analysis) becomes less active during flow. Similarly, neuroimaging studies have connected stimulation of the brain's multiple demand system, required for task-specific attention, with destimulation of the brain's default mode network, which hosts self-referential cognition (Peifer et al., 2022). These studies support the idea that attention becomes so outwardly focused on a specific goal during flow that inward

reflection becomes non-existent (Harris et al., 2017). While these findings may explain the lack of self-consciousness associated with flow, there is considerable nuance within the context of creative activity. Cseh (2016) argues that where hypofrontality may easily apply to flow-inducing activities that are primarily physical, the implicit and explicit mental processes present in creativity may challenge the theory. Dietrich (2004) also recognizes the role of the prefrontal cortex in the creative activation of memory, judgment, and reflection. Similarly, he states that mind-wandering (such as daydreaming) holds an important role in the creative process. Other studies suggest that while self-referential thinking may decrease in flow, other prefrontal cortex tasks, such as reaction choice and the operation of restraint, may have a larger presence (Harris et al., 2017). In a recent study examining neural activity during jazz improvisation, higher instances of transient hypofrontality were observed when skilled musicians experienced a reduction in cognitive control (Rosen et al., 2024). This research points to a possible correlation between increased flow, individual expertise, and a willingness to surrender control to the process. The variation in findings suggests that understandings of flow experience are overgeneralized and that specific neurocognitive patterns are unique to particular stages of the creative process. The inconsistency between neurocognitive interpretations of flow is likely due to the contextual differences between flow-inducing activities (van der Linden et al., 2020). This highlights an important distinction: though flow can be reached through art-making, not all aspects of creating art necessarily evoke flow. Similarly, the occurrence of self-conscious thinking in some parts of the creative process does not cancel out the opportunity for transient hypofrontality and the associated decrease of self-consciousness in other parts.

In addition to the possible downregulation of the prefrontal cortex during flow, there are significant findings in the realm of behavior and motivation. In a neuroscientific review, van der Linden et al. (2020) identify the transmission of dopamine during flow and its associated feelings of "enjoyment, hope, optimism, and craving" (p. 950). The researchers also point to a decrease in amygdala activity, resulting in a temporary reduction of worry, nervous tension, physical discomfort, and lethargy. These enjoyable outcomes reward and reinforce the flow-inducing behavior, validating Csikszentmihalyi's (1990) idea that flow becomes intrinsically motivating. Sustained energy, positive mood, and reduced anxiety lead the individual to seek flow again (van der Linden et al., 2020). These desired effects, combined with a decrease in self-referential thinking, make flow an effective outlet for escaping life's unpleasant aspects. While this literature review emphasizes the positive attributes of flow, it is also important to recognize its capacity for addiction. The next section will explore possible connections between the cognitive functions of flow and the prevalence of compulsive smartphone use observed in our society.

Flow Experience in the Digital World

Recognizing the parallels between flow theory and addictive behaviors, several researchers have focused on the presence of flow characteristics within the smartphone user experience. In an empirical study involving 384 participants, Zhang et al. (2014) identified the experience of flow as a positive reinforcement contributing to smartphone addiction. Similarly, a study focusing on mobile social media use among high school students showed that flow experience via smartphone increases the likelihood of developing "nomophobia," the intense fear of becoming separated or disconnected from one's smartphone (Kara, 2021, p. 412). A related study revealed a correlation between flow and spontaneous online shopping behavior (Piefer et

al., 2022). More recently, researchers Zhao and Wagner (2023) focused on the implications of TikTok's short-form video format and content algorithms on user accessibility to flow. Their research confirmed that the ease and convenience of social media use, paired with the efficiency of content suggestions based on user preferences, make smartphones a desirable tool for quick access to enjoyment, concentration, and distraction. In a study exploring social media users' fear of missing out (FOMO) and its relationship to social anxiety, Elhai et al. (2020) emphasize the duality of smartphone use as a method of both connection and isolation. Zhao and Wagner (2023) bring up a similar paradox: while the convenience of smartphone use may provide pleasant relief from stress, the same ease of use can cause excessive reliance that is damaging to individual well-being. This research connecting flow theory to the prevalence of smartphone addiction suggests that human beings are drawn (in pursuit of enjoyment) to flow experiences whether they are conscious of it or not. Considering the wide variety of experiences that can facilitate flow, it may be beneficial to aim for flow-inducing activities that do not have the same negative consequences as excessive smartphone use.

Personal Growth via Creative Flow

As previously discussed, neurocognitive studies indicate activation of the brain's reward systems during flow, aligning with Csikszentmihalyi's (1990) descriptions of intrinsic motivation. More specifically, the author referred to flow as an "autotelic experience" (p. 67) in which the required action, rather than the anticipated result of the action, is the enjoyable reward. In turn, the autotelic experience bestows a sense of empowerment and ownership over one's own happiness, inspiring the individual to seek additional opportunities for life enjoyment through flow. In a study relating the concept of flow to the practice of art therapy, Warren (2006) echoes

Csikszentmihalyi's proposition that the maintenance of personal well-being requires intentional foresight, careful nourishment, and conscious responsibility. If flow is obtained through creative practice, its experience can deepen an individual's sense of purpose and ability to find meaning in life's occurrences (Banfield & Burgess, 2013). In his work connecting creativity to the development of intuition, Johnson (2015) emphasizes that "creativity is a part of being self-actualized and fully human" (p. 4). This research upholds the idea that, though the creative process may contain challenging moments of doubt, resistance, and repair, perseverance toward creative flow can encourage lasting personal growth.

Mental Health and Emotional Intelligence

Several mental health benefits are connected to the cognitive functions of creative flow. In addition to the autotelic enjoyment brought about by most flow-inducing activities, the generative and personalized nature of the art-making process holds unique healing potential. From the standpoint of artistic technique, Sylwester (1998) connects the advancement of fine motor skills with serotonin fluctuations known to improve self-esteem. In a review of flow within the context of art therapy, Chilton (2013) refers to several studies connecting creative flow with feelings of confidence, proficiency, and optimism, even in the presence of pain or hardship. As a person becomes completely engaged in the action of creativity, derogatory thinking habits have a chance to rest, and the strain of anxiety is released (Martin & Colp, 2022; Peifer et al., 2022). This is often described as the absence of the inner critic during the flow experience (Martin & Colp, 2022). When the flow experience is over, moments of stress and self-criticism will inevitably return, but the individual continues to build upon a growing resilience and contentment with life (Chilton, 2013). This may connect to the artist's willingness

to recover from mistakes, accept the limits of their control (Cseh, 2017), and collaborate with unplanned circumstances (Eisner, 2002). Thus, the experience of the creative process and the positive reinforcements of flow allow the individual to practice skills that develop autonomy and adaptability, contributing to overall mental health.

The presence of imagination and emotion adds to the personal benefits of creative flow. In his biological defense of arts education, Sylwester (1998) emphasizes the evolutionary significance of emotional intelligence. The stretching of the imagination in creative pursuits allows a person to experiment with a vast range of emotions they may not currently feel in their day-to-day life. Emotion enhances and sustains attention. This results in heightened abilities to improvise, solve problems, and learn on the go (Sylwester, 1998). Similarly, Eisner (2002) recognizes the developmental importance of exploring open-ended ideas beyond the confines of logic. This widening of emotional capacity is linked to a person's ability to withstand challenges and ascertain meaning and purpose in life (Chilton, 2013; Warren, 2006). As emotion is central to the evolution of human consciousness, the ability to safely explore and respond to emotions (within a creative practice such as art-making) is critical to inward and outward development.

Self-Discovery and Intuition

As previously stated, a key indicator of the flow experience is a decrease in self-consciousness. On the surface, this idea may be perceived as a simple lack of self-awareness, but reveals greater complexity within the realm of creating art. Several components of the creative process involve the development and expansion of individual identity. Campbell's (2011) study of holistic art education points out that the creation of visual imagery often happens in pursuit of relational understandings. Eisner (2002) stated, "the

imaginative image … functions as a template by which we reorganize our perception of the world" (p. 83). As artists seek to interpret local, global, physical, metaphysical worlds and beyond, their findings reflect back to their own identities. In learning about the outer world, one learns about their inner world and vice versa. Csikszentmihalyi (1990) explains how a receding self-consciousness can lead to self-expansion through flow:

> So loss of self-consciousness does not involve a loss of self, and certainly not a loss of consciousness, but rather, only a loss of consciousness *of* the self. What slips below the threshold of awareness is the *concept* of self, the information we use to represent to ourselves who we are. … When not preoccupied with our selves, we actually have a chance to expand the concept of who we are. Loss of self-consciousness can lead to self-transcendence, to a feeling that the boundaries of our being have been pushed forward. (p. 64)

While developing a sense of unique self, artists may also feel a connection and belonging to something larger. Banfield and Burgess (2013) touch on this duality of community and individual identity in their work with visual artists. Similarly, creative flow has been observed as a method for self-discovery through the uncovering of inner wisdom (Chilton, 2013; Warren, 2006) and the playful exploration of imagination (Eisner, 2002). In essence, the experience of flow within the creative process can bring the individual to know themself better.

The potential for self-discovery through creative flow may be linked to a strengthened intuition. Chilton (2013) proposes that, in certain situations, creative practice may be the only way to pull hidden knowledge from the unconscious mind. This idea suggests that creative drive can be rooted in concepts beyond the immediate scope of awareness. Warren (2006) highlights

the important role of spontaneity in creative work, referring to the artist's eagerness to follow a hunch. Prominent art educator Olivia Gude (2007) emphasizes that artists do not need to anticipate specific results. Instead, they often improvise with materials and concepts in the present moment. These similar points suggest that artists inherently trust that the process will bring about deeper meaning and is worth carrying out. Peifer et al. (2022) found relevant studies associating the flow experience with intuitive decision-making and risk-taking. Similarly, Eisner (2002) presents the idea of "internal monologues" (p. 81) during the creative process as an effective method for sorting through life's complications in the privacy of mind. Though these interpretations exist within the subjective nature of varying artistic experiences, it is worth acknowledging the role of intuition in flow. The invocation of inner wisdom, combined with an expanded view of the self, sense of belonging, and increased emotional intelligence, posits creative flow as a worthwhile pursuit. Where other flow-inducing activities may provide a convenient distraction, creative practice can encourage personal growth that stretches beyond the temporary experience of flow.

Practical Applications of Flow in Art Education

As research expands around the cognitive, emotional, and personal growth flow brings, relevant implications in educational settings are investigated. The core components of flow (concentration, challenge/skill balance, goals, and feedback) hold essential connections to learning. Several studies have recognized that flow experience enhances key educational competencies: intrinsic motivation, engagement, memory retention, risk-taking, problem-solving, and creativity (Gold & Ciorciari, 2020; Peifer et al., 2022). These skills lead to optimal learning

outcomes and heightened performance levels, positioning flow as a worthy objective for educational settings.

The art classroom may be an exemplary learning space to pursue the flow experience. In a study examining flow occurrences in school settings, students reported higher instances of flow in fine arts and music classes (Schmidt, 2010). This may point to the process-based, experiential emphasis of the arts, which contrasts the highly structured and teacher-centered instruction that is more common in traditional academic courses. Indeed, the field of art education leans increasingly toward student-directed learning. Art education pedagogies that prioritize student choice and the development of artistic behaviors include the Studio Habits of Mind (Hetland et al., 2013) and Teaching for Artistic Behavior (Douglas & Jaquith, 2018). Hogan et al. (2020) recognize a coinciding shift in art education: the valuing of artistic thinking/behaviors over the resulting aesthetics of artistic products. This emphasis of process above product recognizes the important transferability of artistic behaviors into other realms of academic and professional life. The creative process encourages vital personal growth aligning with the effects of flow: heightened attunement (Gude, 2007) and the important work of self-discovery (Campbell, 2011). In a study exploring personal attributes that increase the likelihood of flow, associations between flow and intelligence were weak (Ullén et al., 2012). These findings suggest that flow is not dependent on cognitive ability and, when provided the appropriate support, its benefits are attainable for a diverse range of learners.

Art Activity Parameters to Encourage Creative Flow

To support flow in the art classroom, instructors must consider the delicate balance between challenge and skill. Csikszentmihalyi (2014) emphasizes the necessity for this

equilibrium, stating that the depth of life's enjoyment exists in contrast to the experience of its difficulties. The right amount of challenge initiates engagement, sustains focus, and informs enjoyment. As an individual student's perception of challenge is based on their current skill level, art teachers must remain sensitive and adaptive to the varying needs of their students. In order to avoid boredom (challenge too low) and anxiety (challenge too high), the instructor must design activities from a working knowledge of individual students' artistic abilities (Warren, 2006). Considering the diversity of the students in a community, activities should contain opportunities for differentiation, scaffolding, and extension (Mansour et al., 2017). The necessary amount of guided instruction also varies as certain students will require more or less direction in areas of media, technique, or concept development. Research has connected higher levels of flow experience to a gradual release of control, beginning with structured teacher support and shifting toward student-directed practice (Schmidt, 2010). These ideas highlight the teacher's role as facilitator of flow, maintaining moment-to-moment awareness of the evolving challenge/skill relationship and a willingness to adapt instruction accordingly.

In addition to an appropriate level of challenge, flow theory literature emphasizes the presence of clear goals and unambiguous feedback (Csikszentmihalyi, 1990). As previously discussed, the functions of goals and feedback may be different in creative flow (Doyle, 2017). Csikszentmihalyi (2014) recognizes that creative actions exist within subjective hierarchies of success and that an artist must learn to self-evaluate. When an art teacher aims to encourage flow in an activity, the structures surrounding goal-setting and feedback should be loose, subjective, and student-directed. Though studies have identified planning, encouragement, and evaluation as antecedents to flow (Peifer et al., 2022), it is important to recognize that in-progress feedback

can pull the artist out of the flow experience (Warren, 2006). It may be wise to gauge whether a student is open to suggestions before providing feedback and to reserve critical feedback for structured evaluation at designated times. This stands as a reminder to art teachers that, while not every element of the curriculum needs to evoke flow, a student's immersion in the experience of art-making should be carefully guarded.

When teachers provide flexible guidance in goal-setting and feedback procedures, they acknowledge the importance of student autonomy. A sense of ownership over one's experience can be difficult to reach in teacher-directed classrooms. Balancing direct instruction with student choice supports intrinsic motivation and skill development (Peifer et al., 2022). Research has shown that students' feelings of autonomy and control outweigh the importance of the challenge/skill balance when supporting flow in educational settings (Schmidt, 2010). Teachers can help students develop autonomy by encouraging them to follow their individual curiosities (Mansour et al., 2017). As flow theory and its conditions are discussed, emphasis is placed on what students control in the process: their choices, efforts, perspectives, behaviors, and persistence in sustaining flow (Warren, 2006). When instruction supports student autonomy, the art classroom becomes a place where learning invigorates unique strengths and personal purpose. An individual's perception of control in an activity plays a critical part in accessing flow.

Students may take more responsibility for their growth when they care about the contents of their learning. Art education holds a unique capacity for students to form personal connections to the curriculum. Gude (2007) encourages teachers to collaborate with students in the designation of artistic themes, allowing for relevant and meaningful connections to student life. When structured projects are provided, the author states that teachers should promote the

formation of meaning above the mimicry of technique or design. Similarly, Campbell (2011) suggests the use of open-ended prompts such as "What is my purpose in life?" (p. 22) to motivate the process of self-discovery. The organic unfolding of meaning requires flexibility and room for the expansion of ideas (Warren, 2006). When project parameters are too rigid, students may struggle to find personal relevance. Schmidt (2010) found that flow occurrence is higher in educational settings informed by students' choices and interests. These ideas point to the importance of flexible structure in the art classroom. Without any guidelines, students may flounder and feel overwhelmed by the vast scope of possible actions. Perhaps, then, project parameters are like flexible containers for seeds. As students grow their ideas, the walls around the seeds can bend and fall away. If the outcome is to become immersed in the execution of a transforming idea, the pliability of prompts supports flow.

Concerning the materiality of art-making, it is important to recognize gaps in the current literature. Though studies have addressed flow experience in relation to visual art, scholarly research exploring the impact of specific art-making components (such as material, scale, technique, or design) is limited. In Cseh's (2017) research with professional artists and designers, sketching is identified as an important practice for focus, ideation, memory retention, thought organization, and encouraging flow. This may support using a visual journal practice as more than a method of planning and reflection, but also a vessel for flow in itself. In another study centered on flow in visual art-making, key differences were discovered between two-dimensional and three-dimensional art forms (Banfield & Burgess, 2013). Two-dimensional art forms elicit improvisation and meaning through process, while three-dimensional art-making is associated

with an emphasis on product. This information merely scratches the surface of possible implications of activity parameters on creative flow.

Learning Environment and Creative Flow

The inner experience of flow is reliant on outer circumstances. When aspects of the physical environment distract or interrupt, it may be difficult for students to reach or return to flow (Peifer et al., 2022). The higher the aspiration, the more prevalent and powerful the distractions (Csikszentmihalyi, 2013). In carefully cultivating a flow-conducive environment, art teachers can hone in on the sensory experience of art-making. The bustle of the classroom may be neutralized with calming background music that eases the transition from group collaboration to individual work (Warren, 2006; Chilton, 2013). Csikszentmihalyi (2013) connects the visual experience of a personalized environment with heightened occurrences of creative flow. This idea may support student involvement in the customization of work areas and artwork displays. The accessibility and abundance of art materials also encourage flow, allowing the artist to experiment freely (Csikszentmihalyi, 2014; Peifer et al., 2022). In her work with art therapy clients, Warren (2006) highlights the importance of balancing the physical size and material demands of the activity with the session time frame to limit anxiety and encourage flow. This points to the role that time plays in the art class environment and the effects that media, technique, scale, and content choices can have on flow.

In addition to the considerate design of the classroom space, the creative process can benefit from an occasional change in scenery. Csikszentmihalyi (2013) recognizes that an active and energetic setting may be helpful for illumination, while a calm and subdued environment may aid planning, execution, and reflection. Within the context of the high school art program,

student autonomy and flow may be supported through self-regulation of environmental needs. Some students may benefit from listening to music in headphones or bringing their work outside during particular stages of the creative process. When students feel free to personalize their art-making experiences, they may develop a sense of belonging and ownership in the art room.

Within the social dynamics of the classroom, attitudes toward learning are often shared. Several studies indicate commonality among students' and teachers' consistency of flow experience (Peifer et al., 2022), highlighting the impact of sharing perspectives and personal meanings in group discussion (Chilton, 2013; Warren, 2006). Campbell (2011) emphasizes the importance of the teacher's lived experience through the creative process. Similarly, flow research has identified a correlation between flow-conducive classrooms and student-teacher collaboration (Schmidt, 2010). These studies suggest that students benefit from learning about and witnessing their teachers' artistic experiences.

Acknowledging the position of social dynamics in the classroom, it is also important to foster an environment of emotional safety. If instruction is designed to incorporate student interest and encourage self-discovery, the presence of emotional vulnerability is likely. Warren (2006) points out that not all students may have had emotional security in their upbringing, which can cause difficulty obtaining flow. A relevant study determined that creative flow is supported by coinciding emotional support and encouragement toward individual objectives (Peifer et al., 2022). These considerations re-emphasize the importance of the instructor's sensitivity, openness, and respect for student autonomy.

Teachers and students work together to create a culture in support of flow. Peifer et al. (2022) recognize the positive effects on flow occurrence when failure and mistakes are

normalized. As students see their teachers and peers solve problems and recover from setbacks, the illusion of instantaneous success begins to dwindle. The class community acknowledges that art is a process, connecting creative habits to the emergence of insights and the improvement of skills. Class routines, such as taking a walk to calm the mind, free writing, and group brainstorming sessions, stimulate the development of creative intuition (Johnson, 2015). Gude (2007) advocates for the inclusion of expressionist style art-making to bring more joyful improvisation to the art room. Together, students can begin to shift perceptions of success away from sheer realism and technique. A shared appreciation for intuition and personal meaning in the creative process can help cultivate a culture in which the benefits of flow are accessible to all students.

Conclusion

The experience of creative flow enhances the quality of life. The literature in this review supports this idea through the examination of the conditions, neurocognitive functions, personal growth, and educational implications of flow theory. Decades of research have explored the mysteries of intrinsic motivation and immersive concentration in a wide span of activities. When flow is reached through creative action, the personal and mental health benefits stretch far beyond temporary engagement (Chilton, 2013; Doyle, 2017; Martin & Colp, 2022). Art classrooms are ripe with opportunities for students to creatively pursue self-discovery and personal meaning (Gude, 2007). As students learn to navigate our fast-paced and information-saturated world, creative flow provides the option to slow down, enjoy present experiences, reorganize thoughts, and emerge with a greater sense of autonomy. My action research will build upon my growing knowledge of the flow experience and its possible

applications to art instruction. By examining the function of creative flow in my art-making, I hope to infuse its value into the culture of my classroom.

Methodology

As an art educator, I want to increase student access to sustained concentration and meaningful self-discovery. This study explored how an intentional awareness of creative flow can improve my instructional practices. I utilized an arts-based research method to activate and transform theoretical knowledge into practical applications for the high school art classroom. The art-making process was well-suited for this endeavor due to its capacity to reveal complexity, meaning, and unique interpretations (Leavy, 2020). Through the process of visual journaling and creating a series of artworks, I experimented with artistic media and activity structures that may facilitate creative flow. The purpose of this art-based research was to highlight, investigate, and encourage creative flow as a reliable method of self-care for myself and my students. This exploration will inform my future instruction and energize the pursuit of flow in my classroom.

This qualitative research effort was open-ended; the specifics of results were unpredictable, and the course of exploration remained flexible in the creative process. The use of visual journaling and art-making as systems of inquiry allowed the emergence of unforeseen insights about myself, my instruction, and the students I serve (Shipe, 2016). My narrative reflections were used to contextualize research findings within my roles as an educator and an individual (Efron & Ravid, 2013). This study was rooted in the intention to stimulate, sustain, and contemplate my creative flow experience so that I may bring authentic perspectives and effective instructional strategies to my students. In essence, the artistic process helped me answer the question, “How can an understanding of creative flow experience improve my teaching

practice?" This chapter outlines the subjective nature of my role as teacher/artist, the functional parameters of my art-based research, and an analysis of my findings.

Action Researcher Role

My experience with creative flow began long before I knew it as a psychological concept. As a child, I spent summer days engrossed in playful pursuits: sculpting pies out of mud, mastering underwater somersaults, and performing singing recitals on the fireplace hearth. Without conscious intention, I sought these experiences for their associated feelings of activated presence and ecstatic joy. Creative play felt like life on full blast. In my adolescent years, increased self-consciousness and social awareness pushed my flow experiences to more private arenas, but the stable undercurrent of creative practice brought essential self-development and resilience. Personal growth via art-making followed me into adulthood and undoubtedly informed my decision to become a high school art teacher.

When I became familiar with the concept of flow, as studied by Csikszentmihalyi (1990), I felt a strong resonance between the literature and my lived experience. This catapulted me into deep reflection about the presence of flow in my students' lives, the obstacles that may compromise their ability to concentrate, and how I might intentionally increase student access to flow through my instruction.

In my five years of teaching, I have developed a curriculum emphasizing student choice, autonomy, and meaningful themes. In lower-level courses, instructional units emphasize exploration of a specific media or technique and culminate with a theme-based artwork. As students progress into higher-level courses, opportunities increase for student-directed projects and personal goal-setting. My teaching is led by a sensitive awareness of the push-and-pull

between structure and spontaneity. I aim to provide a safe and predictable environment in which students feel inspired to attain maximum growth from the creative process.

My preconceived notions of flow psychology and personal experience with art-making bring significant bias to this research. In a qualitative study, it is important for me to recognize my subjective experience "as an integral part of the research process" (Efron & Ravid, 2013, p. 57). The design of this art-based research study, the creative choices within my artwork, and the interpretation of the qualitative findings are rooted in my pre-existing roles as a teacher and an artist. However, this subjectivity is an aid to my research effort. The creative process allows me to deepen my perspective and confront previously held ideas (Leavy, 2020) within the specific dynamics of my teaching practice (Efron & Ravid, 2013). Pursuing flow within the context of my personal art practice brings compassion and authenticity to my instruction.

As an artist, my creative work spans across a variety of 2D, 3D, and digital media. I am fascinated by visual systems in the natural world and the ambiguity observed between micro and macro imagery: the vein patterns in a leaf, the meandering shape of a river channel, the intricate sections of a dragonfly wing, or the topography lines of a mountain range. I am interested in the experience of awe and the dynamic relationship between human beings and nature. In translating my observations of the natural world into layered colors, textures, and organic forms, creating art inspires me to ponder how natural systems may be perceived as metaphors for human development and psychological experiences. The artistic process allows me to zoom in on the visual poetics of natural imagery and piece together personal understandings of how I am both connected to and separated from the natural world.

Project Site

As the occurrence of flow may be influenced by the environment in which the activity takes place (Csikszentmihalyi, 2013), this study was conducted in various locations. The art-based research occurred in my home studio, backyard, indoor art classroom, outdoor classroom garden, and at local coffee shops and parks. Each of these places are located within the boundaries of the rural county I live in, spanning over 2,000 square miles, its rolling hills blanketed by oak woodland and stretching to high-elevation alpine forest. The local community boasts its rich natural beauty, mining and logging history, and the persevering influence of the Native American tribal bands. Industries with the highest employment are health care and social assistance, educational services, accommodation and food services, and the arts, entertainment, and recreation sector. The local economy relies heavily on the positions of its small towns as destinations or stopping points near outdoor recreation and adventure. Home to over 55,000 people, about 75% of the population identify as White, 13% as Hispanic/Latino, 6% as Multi-Racial, and less than 6% as African American, Native American, Asian, Pacific Islander or some other race. About 11% of the population is considered to be living in poverty.

Though I did not collect data from my students, it is important to consider the context of the community in which I teach. When I earned my preliminary teaching credential in 2018, I accepted the position of Filmmaking/Art teacher at the high school where I continue to work. The high school shares its campus with an integrated 7th-12th grade charter school emphasizing the visual and performing arts. In my 9th-12th grade art classes, I teach a mix of students from both schools. In total, the campus serves approximately 650 students, with about a third of the student body enrolled in the charter school and about 50% qualifying for free or reduced lunch.

The integration of the charter school attracts students who are passionate about creativity, resulting in a campus culture and administrative leadership that values and supports the arts. In my five years at the school, the Visual Arts program has grown to include Photography, a full-time Media Arts (Film/Photo) teacher, and a second part-time Art teacher. I currently teach the Art 2, 3, and 4 courses.

I am grateful to work in a new building, completed in 2020, located at the top of our woodland campus. Behind the building, there is a concrete deck with picnic tables and a storage shed. In front, two small garden planters (a former student's senior project) host wildflowers, lettuce, and sprouting radishes. The hill, positioned above other classroom rooftops, allows an expansive view of the nearby forests. Students are frequently amused by the wild squirrels, deer, turkeys, and frogs that live on campus. The room, with its high ceilings and abundant windows, is often drenched in natural light. Student draft tables raise at an adjustable angle and are tall enough for standing work or sitting on stools. Art supplies are labeled clearly to encourage student autonomy and organization.

My home studio is located in a room at the back of my house that leads to the backyard. The room is connected to a hallway and a bedroom by doors that can be closed for privacy. Three windows and a large sliding glass door let in abundant natural light and views of the lush greenery outside. The studio includes a large table, standing easel, rolling supply cart, craft pegboard, and a wide range of art materials organized in drawers. This room is multi-functional; it is home to a piano, bookshelf, couch, and some of my daughter's toys. There is a digital stereo and surround sound system. Although I find the room to be pleasant and inspiring, its function as

a playroom and transitional space into the backyard can make for frequent interruptions and distractions.

Participants

As this methodology utilized art-based research, I was the primary participant. I am 35 years old, White, middle class, and female. I have worked in the field of education for ten years and as a credentialed high school art teacher for five years.

Additionally, the art-based research included a midpoint and final critique that was open to peer graduate students of The Art of Education University. The midpoint critique involved 12 participants: 11 K-12 Art teachers and one Early Childhood teacher. Of these participants, 16.7% had zero to five years of experience, 25% had five to ten years, 33.3% had ten to fifteen years, and 25% had fifteen to twenty years of experience. In this midpoint critique, 33.3% of the participants had previous knowledge of Csikszentmihalyi's flow theory, while 16.7% were not sure. The final critique involved 10 participants: five being K-8th grade Art teachers and eight teaching 9th-12th grade students. Of these participants, 20% had zero to five years of experience, 30% five to ten years, 20% fifteen to twenty years, and 20% had over twenty years of experience. In this final critique, 40% of the participants had previous knowledge of Csikszentmihalyi's flow theory.

Procedures

This action research study began with a synthesis of key understandings gleaned from the literature review. I created three pages in my visual journal (Appendices A, B, and C) to emphasize and organize my interpretations of flow theory mechanics, the associated personal

benefits, and relevant connections to art education. This reflection helped me to identify art activity parameters and indicators of creative flow to inform my research methodology.

With the contents of the literature review in mind, I brainstormed a variety of contextual, material, and technical parameters that may influence the occurrence of creative flow during art-making. These factors were categorized into four groups ("Environment," "Materials," "Artistic Methods/Techniques," and "Format and Other Considerations") within the "Art Activity Variables" worksheet (Appendix D). The worksheet was utilized as a springboard for designing a variety of art activity parameters to be explored in my visual journal. To connect this work to my teaching practice, I considered the creative constraints that may aid or hinder student accessibility to flow. For example, visual journal work sessions took place at home, in the classroom, in public, in the presence of others, or alone. I was sure that some sessions were limited to the time constraints of the classroom (60 or 90-minute periods) or the flexible hours that can happen outside of school. Other variables include the use of goals or plans, improvisation, the environmental ambience, the presence of music, the art medium, the size of the artwork, the skill-to-challenge ratio, whether feedback was provided, and the use of a specific technique, composition, reference, or theme. Following each work session, the "Work/Flow Log" (Appendix E) was completed to document activity parameter details, indicators of flow, reflections on personal growth, and instructional relevance. The aim of the visual journal exploration was to identify activity factors that may correlate with the experience of creative flow. These findings will inform the development of instructional exercises I can utilize in my classroom.

Alongside the visual journal, I created the artwork series. Specific variables were set for each of the artworks before beginning. The painting techniques and scale of the five artworks varied throughout the work sessions. With the intention of gathering stronger data, the artwork series had certain consistencies that remained the same: the media (acrylic paint), the imagery (skyscapes), and the theme (the sky as a metaphor for the mind). Clouds are an appropriate subject matter for a study focused on creative flow because their forms can be ambiguous, forgivably abstract, translucent, harmonious, and varying in complexity. My hope was that this focused investigation would encourage "unanticipated metaphoric connections between theory, practice, and art creation" (Shipe, 2016, p. 28.) I enjoy painting the sky, which enhances the relevance of the activity to my students' experiences in choice-oriented, student-directed projects. This process emulated the gradual release of responsibility that happens between teacher and student as I worked within the set parameters and then expanded beyond the initial plans. As stated by Schmidt (2010), the gradual release of control in learning environments supports the pursuit of flow. With the consistency of the media and subject matter, I was able to draw stronger conclusions about the impact of other variables that may affect my students' ability to reach the flow state. In addition to post-session "Work/Flow Log" entries, I sought feedback from peers twice throughout the process of creating the series in mid-point and final critiques. These critiques, created with Google Forms, were distributed to The Art of Education University students and faculty through the online Slack network. The results of this study will inform the creation of an instructional presentation and series of art activities that I can begin using with my students in the classroom.

Data Collection Tools

Work/Flow Log. The "Work/Flow" log (Appendix E), completed after every session of visual journaling and artwork creation, allowed opportunities to document indicators of flow experience and reflect on personal insights gained through the creative process. The survey questions emphasize work session variables, flow indicators, personal growth outcomes, artistic behaviors, and instructional connections. Abuhamduh (2020) acknowledges the impossibility of creating an objective qualification for flow and non-flow experiences. Therefore, this survey integrates several possible indicators of flow conditions and personal self-development referenced in the literature review. Many of the questions consist of checklist statements that may or may not align with my felt experience during the work session. For example: "I felt in control of my actions" and "I felt a lack of self-consciousness." Some of the indicator statements were sourced directly from the "Flow Short Scale" (Rheinberg et al., 2023), while others were inspired by the synthesis of the literature review. The survey ends with a simple yes/no question about the presence of flow experience during the session, followed by open-ended narrative responses reflecting on activity parameters. These responses provided contextual details that may have affected the personal outcome of the session and specific insights related to teaching art in the classroom.

Mid-Point Critique. It is important to distinguish how the use of peer critique in this action research differs from the aesthetic valuing that is common in critique. Rather than analysis of composition, media, and technique, both critique surveys focused on the viewer's perception of flow and personal meaning derived from the artwork. The Mid-Point Critique (Appendix F) first prompted participants to share their occupation, years of experience, and pre-existing

knowledge of Csikszentmihalyi's (1990) flow theory. After viewing the definition of flow, participants shared their perceived frequency of flow in their personal lives and, if applicable, their experience discussing creative flow with students. An image of the in-progress artwork was displayed without an artist statement. The participants shared their assumptions about the artist's rate of flow experience while creating the artwork. In addition, they provided any initial interpretations or personal meanings derived from the artwork. This process repeated for an additional in-progress artwork. The artist statement was displayed, and the participant indicated how reading the artist statement did or did not impact their reception of the artwork. Finally, participants shared opinions about the success of the artworks and suggestions for how the pieces might be improved. As the art-based research continued, I reflected on the impact that receiving the in-progress feedback had on my artistic process and experience of flow.

Final Critique. The Final Critique Google Survey (Appendix G) is similar to the Mid-Point Critique. Participants were prompted to share details about their professional teaching experience and their familiarity with Csikszentmihalyi's flow theory. Images of the remaining artworks (Artwork 3, 4 and 5) were displayed with individual prompts for participants to share personal interpretations of the artwork's meaning. Finally, the entire artwork series was displayed together, and participants chose which artworks they believed initiated the highest and lowest occurrence of flow experience in the artist. The artist statement was provided, and participants indicated how their reception of the artworks was affected by the addition of the written statement. In designing the peer critique surveys, I reflected upon how the online survey format varies from the interactive dialogue that is common in in-person critiques. The sequencing of the checklist options and open response prompts were intended to emulate the natural progression of

in-person critiques: artists present their work, peers provide initial reactions, the artist shares about their creative process and artistic motivations, and peers have another chance to respond. At the end of this Final Critique survey, participants were given the option to share additional thoughts or lingering questions.

Data Analysis

Over the course of this study, I completed 49 "Work/Flow Log" entries and collected 22 Peer Critique responses. To determine emerging themes and glean meaningful insights, I first needed to organize the mass of data in a way that would make analysis possible (Efron & Ravid, 2013). Beginning with the "Work/Flow Log," I transferred the 49 log entries from the Google Form into a Google Sheet. The Google Sheet was used to cross-analyze data points that were organized in three Google Doc files: one for written narrative responses, one for checklist statement data, and another for peer critique responses. In the narrative analysis Google Doc, I chunked the data into three categories: artwork series, visual journal entries made in preparation or reflection for the artwork series, and visual journal art activities. I sorted my log entry narrative responses into predetermined themes: art activity parameters, artistic process, creative environment, and response to peer feedback. In grouping similar written responses, sub-themes began to emerge, revealing patterns and insights to compare with checklist data. In Google Slides, I grouped together relevant data from multiple sources. Graphs were created using Canva to visualize checklist data. Word art was generated using WordArt.com to visualize selections of peer responses. The process of coding and visually presenting the data helped solidify core findings that would answer my research question: "How can an understanding of creative flow experience improve my teaching practice?"

As previously stated, the "Work/Flow Log" was designed to include feeling and action statements associated with flow experience in the literature review. In the Google Doc for checklist data analysis, I created charts to compare the occurrence of feeling and action statements documented in each work session. In grouping related statements into categories, the total amount checked in each section acted as a "score" for Flow (Figure 1), Artistic Behaviors (Figure 2), and Personal Growth (Figure 3).

Figure 1

Sample "Flow Score" Calculation with Relevant Literature Cited

Calculating "Flow Scores" for Individual Work Sessions

Session: Artwork 1 – June 3, 2024 – 60 minutes

There were moments of the session where I lost the perception of time passing. (Csikszentmihalyi, 1990)	1 Flow Point	**1**
I lost the perception of time passing for the majority of the session. (Csikszentmihalyi, 1990)	2 Flow Points	
I was able to concentrate and maintain focus. (Csikszentmihalyi, 1990)	1 Flow Point	**1**
My thoughts were aligned with my actions. (Csikszentmihalyi, 1990)	1 Flow Point	**1**
I felt immersed in the experience of creating. (Csikszentmihalyi, 1990)	1 Flow Point	**1**
I felt in control of my actions. (Csikszentmihalyi, 1990)	1 Flow Point	**1**
I felt a sense of ease and enjoyment. (Csikszentmihalyi, 1990)	1 Flow Point	**1**
I felt a lack of self-consciousness. (Csikszentmihalyi, 1990)	1 Flow Point	**1**
I felt that my actions were important or purposeful. (adapted from Rheinberg et al., 2023)	1 Flow Point	**1**
I felt motivated by the process of creating. (Csikszentmihalyi, 1990)	1 Flow Point	**1**
My actions felt effortless. (Csikszentmihalyi, 1990)	1 Flow Point	
I knew what I needed to do. (adapted from Rheinberg et al., 2023)	1 Flow Point	**1**
My inner critic was quiet. (Martin & Colp, 2022)	1 Flow Point	**1**
Artist's qualification of flow experience (Abuhamdeh, 2020) Do you feel you reached a flow experience during this session? (Yes/Not Sure/No)	2 Points for Yes 1 Point for Not Sure 0 Points for No	Yes **2**
Session Flow Score		**13**

Areas of nuance were given special consideration in the "Flow Score" calculation. Two "Flow Points" were counted for sessions where time perception was absent for the majority of the session, while one "Flow Point" was given for sessions when loss of time perception was experienced momentarily. Similarly, two "Flow Points" were counted for sessions where I qualified "Yes" for flow occurrence, and one "Flow Point" was given for sessions where I answered "Not Sure." The creation of this scoring system allowed for the measurement of higher and lower flow levels beyond the initial self-qualification of "Yes," "Not Sure," or "No."

Figure 2

Sample "Artistic Behavior Score" Calculation with Relevant Literature Cited

Calculating "Artistic Behavior Scores" for Individual Work Sessions

Session: Artwork 1 – June 3, 2024 – 60 minutes

I improvised or acted spontaneously. (Gude, 2007; Warren, 2006)	1 Artistic Behavior ("AB") Point	**1**
It was easy for me to adapt to unplanned circumstances. (Eisner, 2002)	1 AB Point	**1**
I solved a problem. (Sylwester, 1998)	1 AB Point	**1**
I stretched my imagination. (Sylwester, 1998)	1 AB Point	
I explored an emotion. (Sylwester, 1998)	1 AB Point	
I took a risk. (Peifer et al., 2022)	1 AB Point	
I made a decision. (Peifer et al, 2022)	1 AB Point	**1**
I made a mistake. (Cseh, 2016; Dietrich, 2004)	1 AB Point	
I failed at an attempt to accomplish something. (Cseh, 2016; Dietrich, 2004)	1 AB Point	
I stopped to evaluate my work. (Cseh, 2016; Dietrich, 2004)	1 AB Point	**1**
Session Artistic Behavior Score		**5**

Statements in the "Artistic Behavior Scores" calculation were derived from the literature review but not directly connected to Csikzentmihalyi's (1990) flow theory. These statements (presented with the associated literature in Figure 2) refer to artistic behaviors that are present in the creative process.

Figure 3

Sample "Personal Growth Score" Calculation with Relevant Literature Cited

Calculating "Personal Growth Scores" for Individual Work Sessions

Session: **Artwork 1 – June 3, 2024 – 60 minutes**

My creativity brought personal meaning. (Abuhamdeh, 2020; Banfield & Burgess, 2013; Csikszentmihalyi, 1990; Warren, 2006)	1 Personal Growth ("PG") Point	**1**
I felt confident. (Chilton, 2013)	1 PG Point	**1**
I felt a sense of personal purpose. (Abuhamdeh, 2020; Banfield & Burgess, 2013; Csikszentmihalyi, 1990; Warren, 2006)	1 PG Point	**1**
I felt empowered. (Csikszentmihalyi, 1990)	1 PG Point	**1**
I felt connected to my intuition. (Johnson, 2015)	1 PG Point	
My inner wisdom was revealed to me. (Chilton, 2013; Warren, 2006)	1 PG Point	
I gained new insights. (Abuhamdeh, 2020; Banfield & Burgess, 2013; Csikszentmihalyi, 1990; Warren, 2006)	1 PG Point	
I felt connected to something larger than myself. (Banfield & Burgess, 2013)	1 PG Point	
I experienced "internal monologues." (Eisner, 2002, p. 81)	1 PG Point	**1**
I learned about myself; my sense of self was expanded. (Campbell, 2011; Csikszentmihalyi, 1990; Eisner, 2002; Gude, 2007)	1 PG Point	
Session Personal Growth Score		**5**

Statements in the "Personal Growth Scores" calculation include indicators of positive mental health or personal self-discovery. The cited literature sources associated these outcomes with either flow experience or the creative process.

Reliability and Validity

Efron and Ravid (2013) emphasize that the subjective nature of qualitative research increases the importance of diligence and validity in analysis. In addition to acknowledging my bias as the primary participant of this study, I employed several strategies to ensure the trustworthiness of my findings. The art-based research process involved triangulation between the literature, checklist statements, my written responses, and the perspectives of peer critique participants. As themes emerged from one data source, similar data points were cross-analyzed to search for patterns and correlations. I considered alternative interpretations to maintain "disciplined subjectivity," and in presenting the data, I included original excerpts from written narrative responses to provide "thick description" and authenticity (Efron & Ravid, 2013, p. 71).

Results

As part of this art-based research endeavor, I explored a natural metaphor through a series of five acrylic paintings. The artworks were inspired by Csikszentmihalyi's (1990) theory of flow psychology, its relevance to creativity, and the role of intuition and self-development in the artistic process. The intention of this series was two-fold. First, I aimed to examine the occurrence of flow experience in my creative process. Second, the work explored a variety of dynamic cloudscapes as visual metaphors for the mind. In the artworks, the sun symbolizes the intuitive Self: ever-present, whether hidden or emerging, illuminating colors and shapes across the sky. The clouds, shifting and elusive, are the ephemeral thoughts that steer attention and

transform self-perception, for better or for worse. My hope was that the visual abstraction of these cloudscapes would lend itself to unexpected insights and personal connections, much like the experience of flow.

In an effort to shield the viewers' interpretations of the artworks' meanings, the individual paintings are simply named by number. The artist statements for the individual paintings are included in the final critique (Appendix G). Figure 4 presents thumbnail images of the artwork series.

Figure 4

The Artwork Series, "Cloudscapes as Psychological Metaphors"

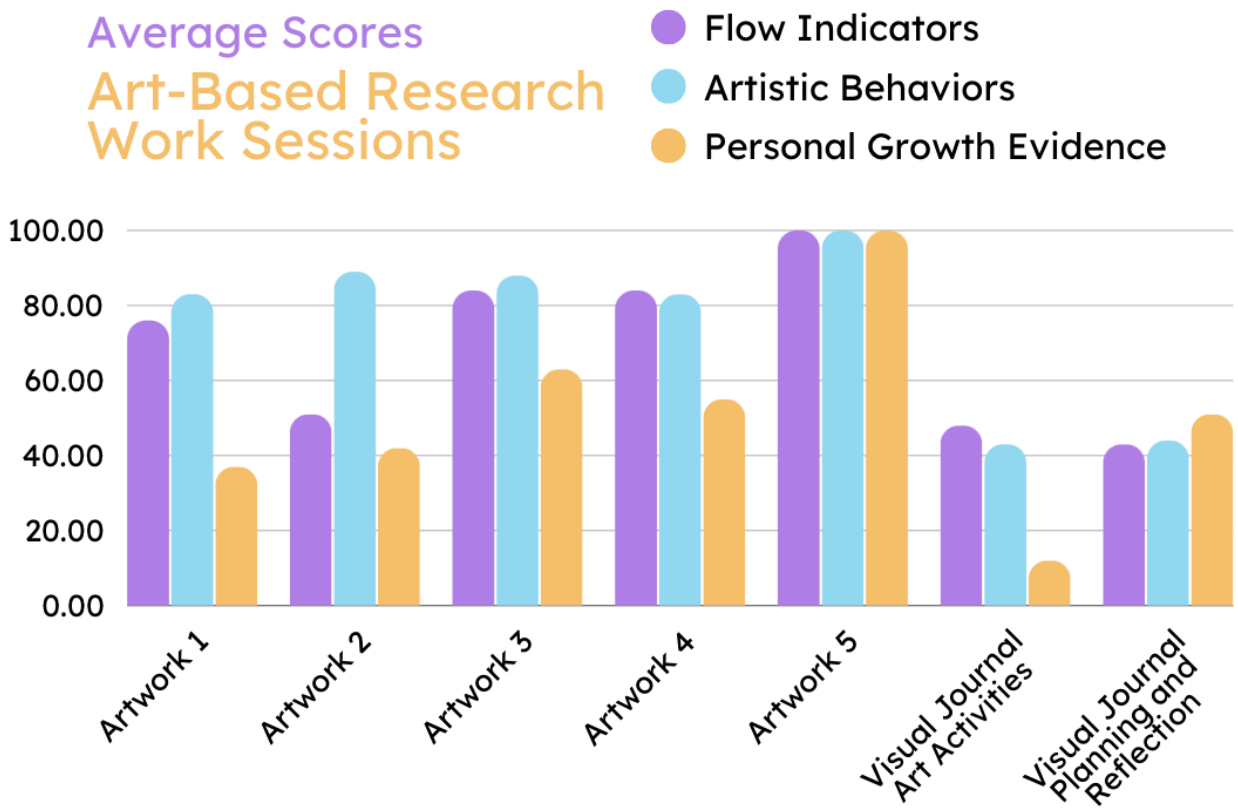
From May 30, 2024 to June 22, 2024 I completed 49 work sessions in the execution of this art-based research. Session activities were split roughly between the artwork series and visual journal exercises, with 26 log entries completed for painting sessions and 23 log entries completed for ideation, reflection, or art-making in the visual journal.

The bar graph in Figure 5 depicts relationships between flow occurrence, artistic behaviors, and personal growth evidence throughout the art-based research work sessions. Scores for work sessions were grouped by activity and averaged to create the amounts depicted in the graph. Because each category (flow, artistic behaviors, and personal growth) is associated with different amounts of checklist statements, the averages were adjusted on a curve for each category to create an easier visual comparison. Each score is depicted on the graph as a percentage of the highest score documented through calculations of the log entry data. Initial comparison of this broad data set revealed several findings:

- The highest scores for “Flow,” “Artistic Behaviors,” and “Personal Growth” were all obtained by Artwork 5.
- Throughout all projects, “Flow Indicators” and “Artistic Behaviors” scored closely in relation to each other, while “Personal Growth” scores were lower. Artwork 2, with the lowest “Flow Indicators” score of the artworks, is an exception; it scored much higher in “Artistic Behaviors” than in other categories.
- Visual journal exercise scores were fairly similar, with the exception of “Personal Growth” being particularly higher during planning and reflection sessions. “Flow Indicators” and “Artist Behaviors” scores were low in comparison to painting (Artwork 1, 3, 4, and 5) sessions.

Figure 5

Average Scores for "Flow Indicators", "Artistic Behaviors", and "Personal Growth"

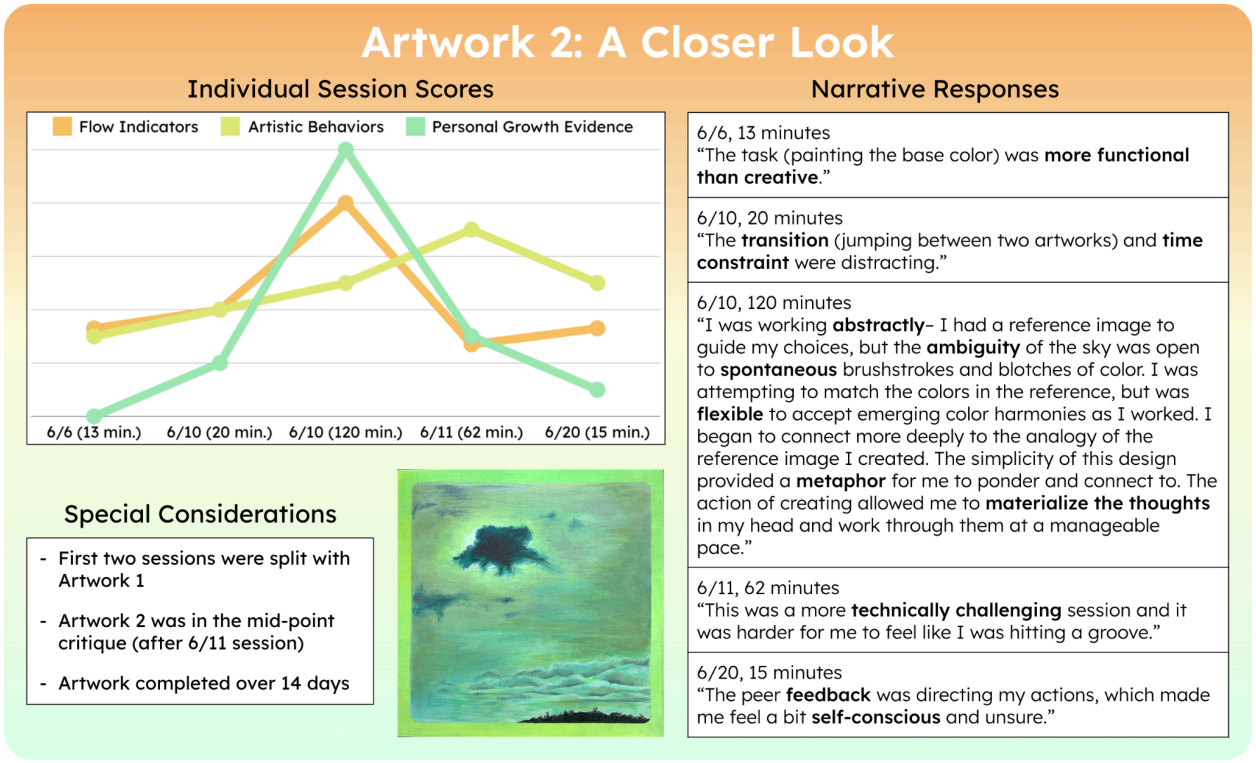


These initial findings steered my search for emerging correlations between activity parameters, environmental variables, peer feedback, and my documented accounts of the art-making experience.

Figure 5 reveals that the creation of Artwork 2 evoked the lowest average "Flow Indicators" score of the artwork series despite its relatively high "Artistic Behaviors" score. To allow closer examination of Artwork 2 "Work/Flow Log" entry data, Figure 6 includes individual session scores and narrative response excerpts.

Figure 6

Presentation of Artwork 2 Data



In the first two of five total work sessions, I alternated between preparatory tasks (mixing colors, painting the base layer, drawing the rounded border, etc.) on both Artworks 1 and 2. Individual session scores and narrative responses show that the transition, paired with the functionality of the task and the presence of a time constraint, contributed to lower flow experience and personal growth outcomes.

In the third session, lasting 120 minutes, I became immersed in the abstraction of the imagery and the improvisation of painting the shifting colors in the sky. I began to strengthen personal connections to the metaphorical meaning of the scene I was depicting. The experience

of this session is reflected in the highest “Flow Indicators” and “Personal Growth” scores for this artwork. These results connect to Gude’s (2007) emphasis on improvisation as a mode for joyful expression and the use of metaphors in fostering meaningful connections.

In the fourth session, lasting 62 minutes, my focus shifted back to depicting the reference image. This emphasis on technical challenges correlates with an increase in artistic behaviors and a steep decrease in flow and personal growth outcomes. At this point, I shared the in-progress work via the mid-point critique. As I collected peer feedback, I moved on to creating the remaining artworks in the series, only returning to Artwork 2 for revisions near the end of the data collection period.

In the final session for Artwork 2, my efforts were in response to peer suggestions, and I struggled to feel confident in my actions. This is reflected in the decline of artistic behaviors and personal growth outcomes. A slight increase in “Flow Indicators” may be linked to the quick, focused direction of the task. The documented experience of creating Artwork 2 indicates that flow occurrence is not constrained by subject matter or project design alone. Rather, the interaction of several fluctuating variables can impact the artist’s enjoyment and personal growth outcomes from one session to the next.

The highest averages for “Flow Indicators,” “Artistic Behaviors,” and “Personal Growth” scores are all attributed to the creation of Artwork 5. To determine what may have influenced these positive outcomes, Figure 7 presents individual session scores and narrative response excerpts. Artwork 5 began when Artworks 1-4 were in their final stages. It was created in five sessions over two consecutive days. My narrative reflections include feelings of confidence, intuition, trust, and personal meaning. In the second session, I had recently read mid-point

critique responses that validated my artistic intentions in Artworks 1 and 2. This motivated me to reach deeper into the psychological metaphor that inspired the series.

In the last session for Artwork 5, my written responses refer to the development of painting technique and a balance between the use of reference imagery and improvised abstraction. All five sessions, ranging from 40 to 60 minutes, encouraged the experience of flow.

Figure 7

Presentation of Artwork 5 Data

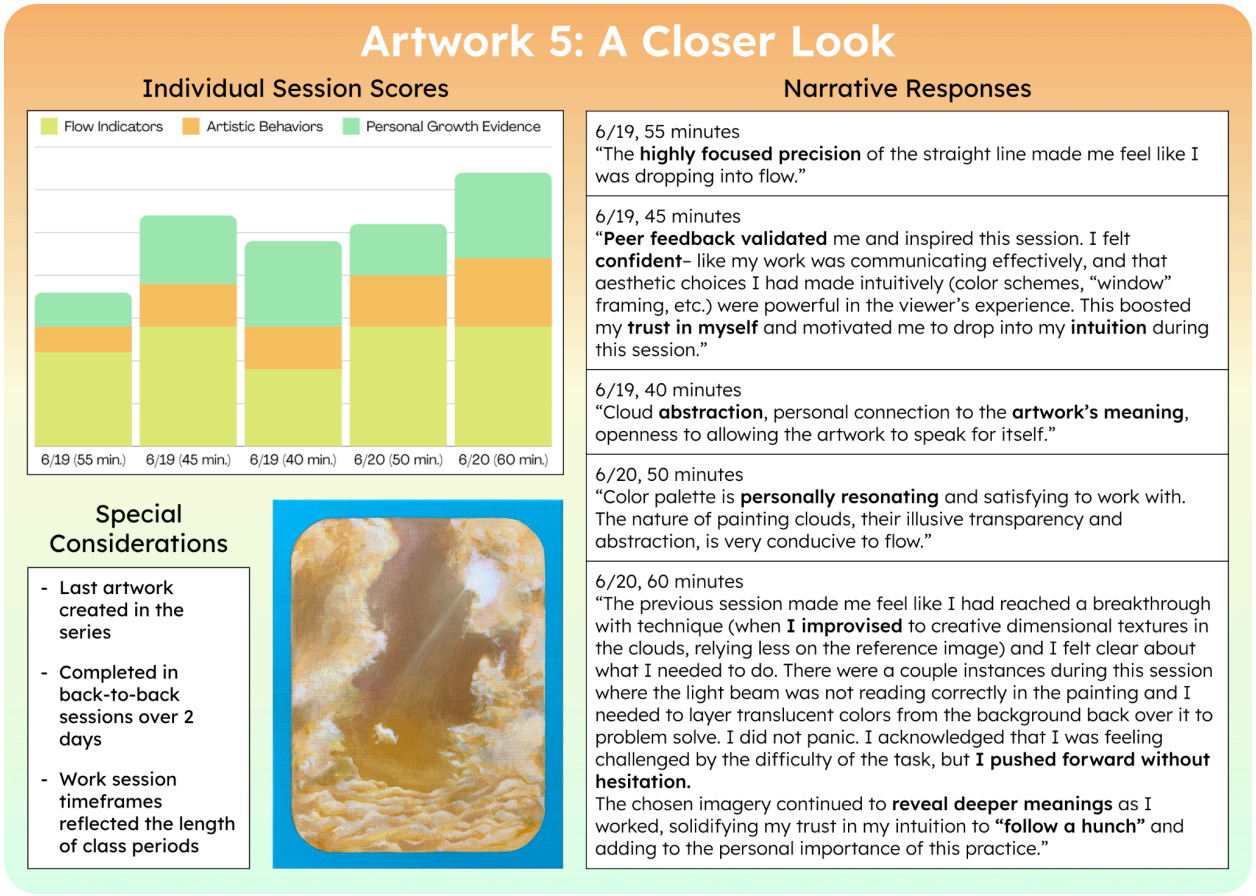


Figure 8 presents core insights that emerged through cross-analysis of "Work/Flow Log" entry checklist and narrative response data. Artwork series and visual journal sessions emphasized the correlation between artistic experience and ease of access to creative flow. The image in Figure 8, "Artwork 5 in process," provides a glimpse at the physical set-up and technical routine (brush choice, glass palette, damp towel for material control, etc.) I developed through the repeated experience of painting. As my familiarity with material, technique, and subject matter increased, my growing confidence allowed improvisation and risk-taking. In moments when a lack of experience caused me to doubt myself, I struggled to move forward. This evidence echoes the link between expertise, flow, and improvisation (Rosen et al., 2024) and the complication of self-consciousness in obtaining flow (Csikszentmihalyi, 1990). Artistic confidence, obtained through the experience of trial and error, widens access to creative flow.

With regards to the artist's perception of experience, data in Figure 8 highlights the alternating focus between the process and product of art-making. When I began to transition from immersion in the process of creation to the refinement and presentation of artworks, my inner critic fueled vulnerability, self-evaluation, and worry. As distinguished by Cseh (2016) and Dietrich (2004), flow occurrence may fluctuate during stages of problem solving and analysis. This idea is parallel to Warren's (2006) observations on in-progress feedback and flow disruption. When my engagement shifted toward public perception of the artworks, self-consciousness overpowered my ability to reach a flow experience.

Figure 8

Key Findings Pertaining to the Art-making Experience

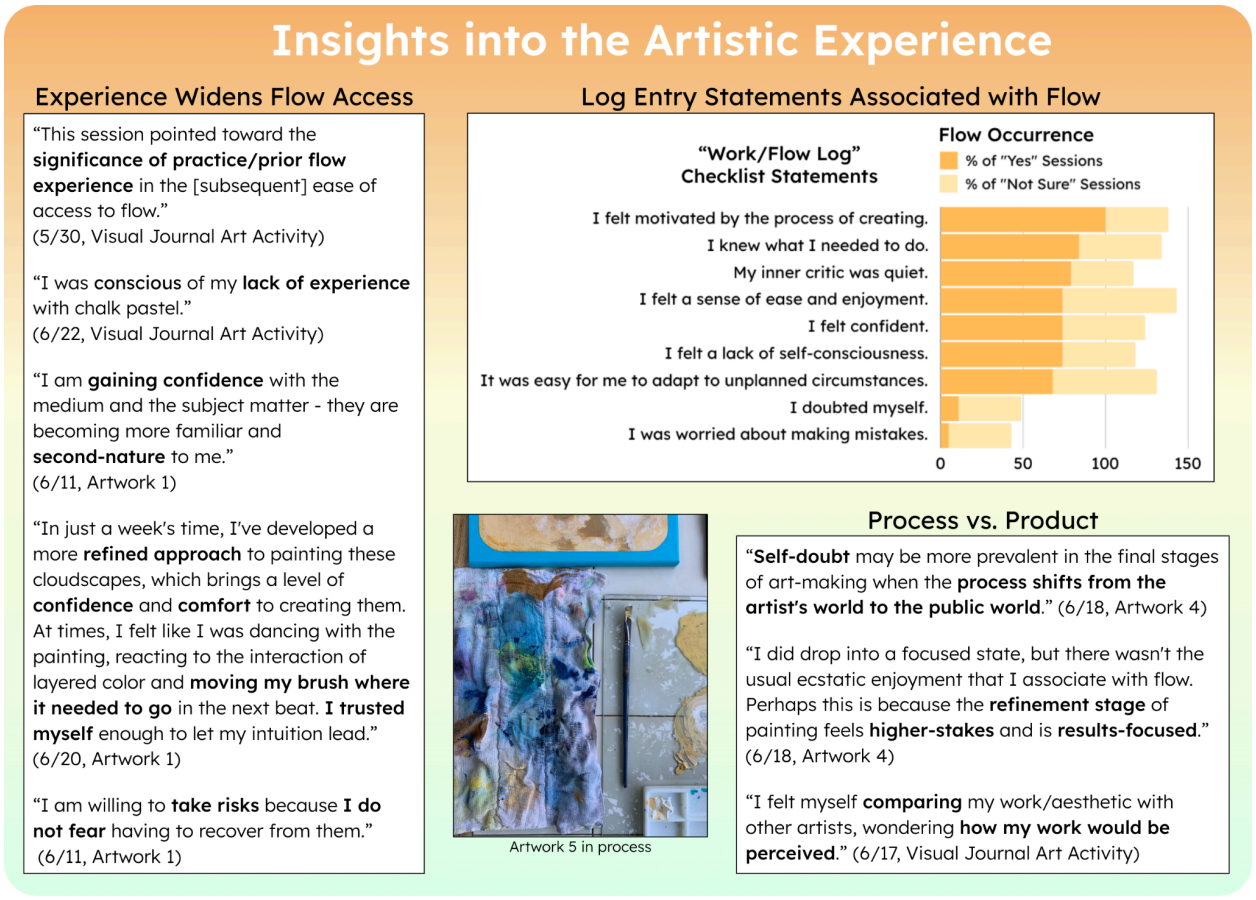


Figure 9

Activity Parameters Associated with Flow Occurrence

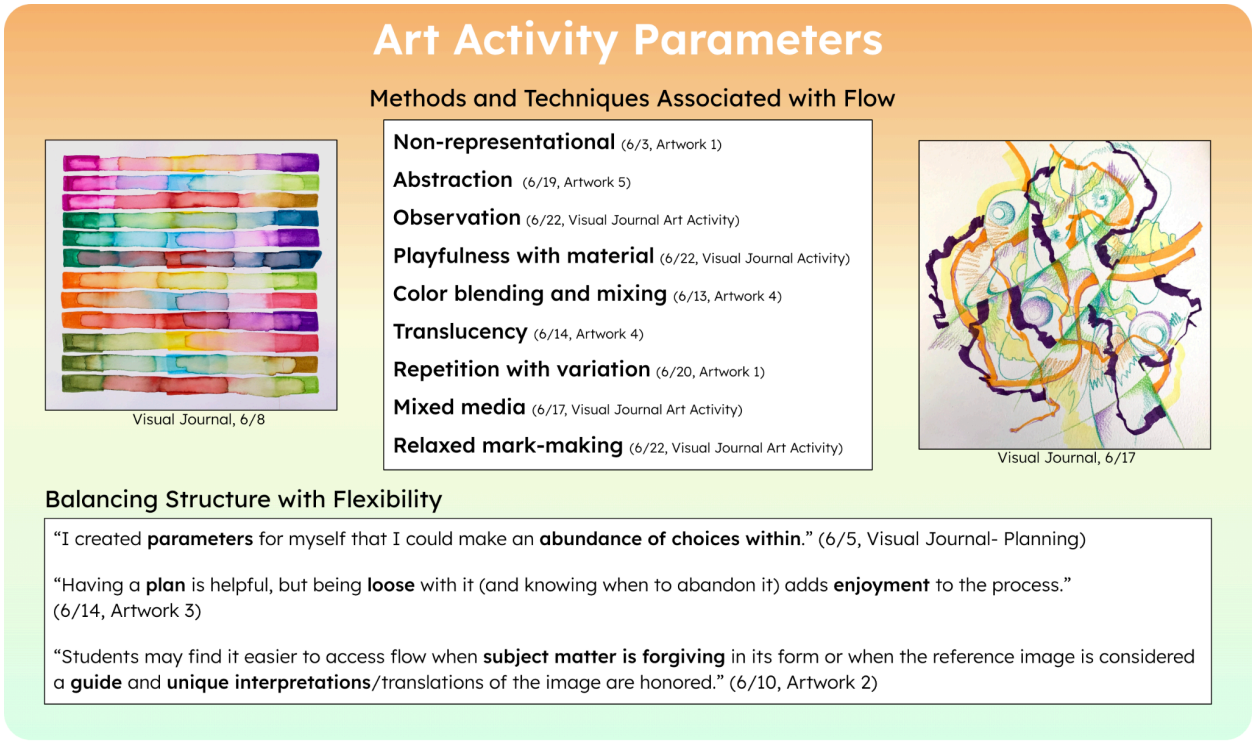


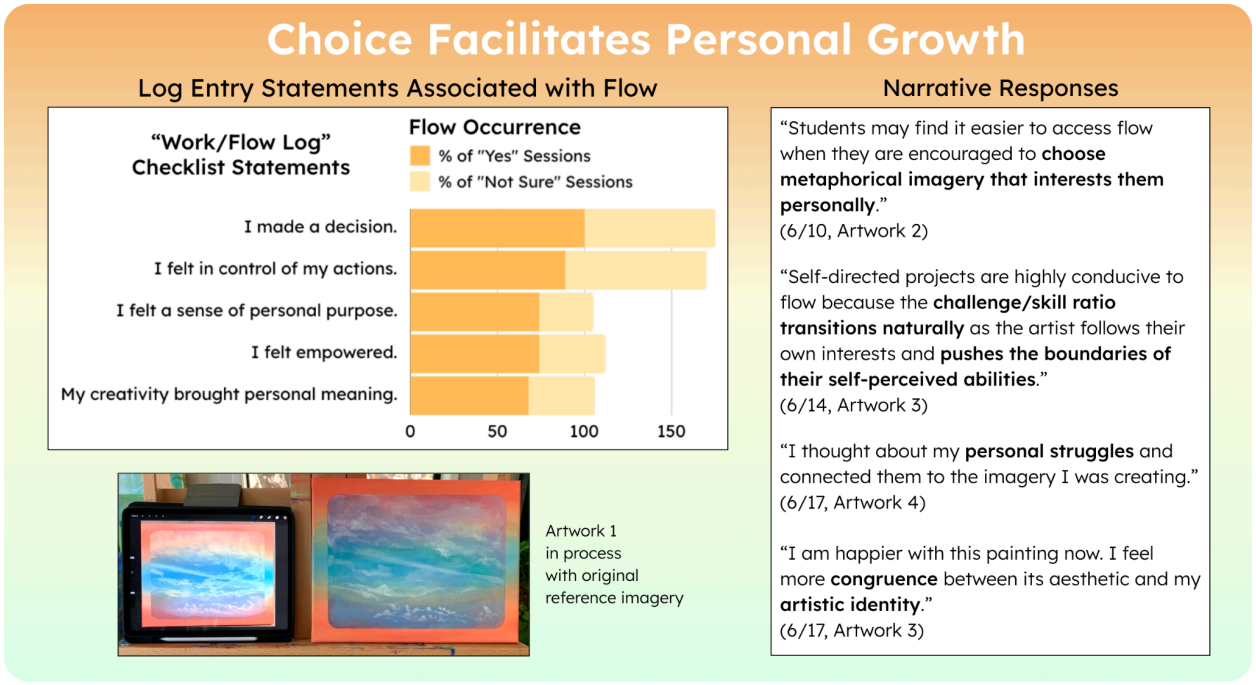
Figure 9 exhibits art-specific activity parameters that corresponded with flow occurrence throughout the artwork series and visual journal exercises. Flow-conducive methods and techniques emphasize a departure from realism into abstraction and playful exploration of material. With regards to activity directives, the comparative data analysis affirmed the importance of balancing structure with flexibility. These findings align with research supporting the role of autonomy in maintaining engagement (Peifer et al., 2022; Schmidt, 2010). Project boundaries provided initial direction, focus, and motivation. When the boundaries were flexible

enough to allow choice and adaptation, I could follow the momentum of my artistic impulses and lean into the enjoyment of personal expression.

Figure 10 depicts evidence supporting the correlation between artistic choice and personal growth outcomes. For each session that I confirmed "I made a decision," I also qualified the experience of flow. A sense of control, personal purpose, and empowerment were also strong links to flow occurrence. Similarly, research studies (Mansour et al., 2017; Warren, 2006) encourage the integration of individual preferences and curiosities. My written responses confirm the effects of self-chosen imagery and visual aesthetics in widening opportunities for personal meaning and self-development.

Figure 10

Positive Outcomes Associated with Choice and Control

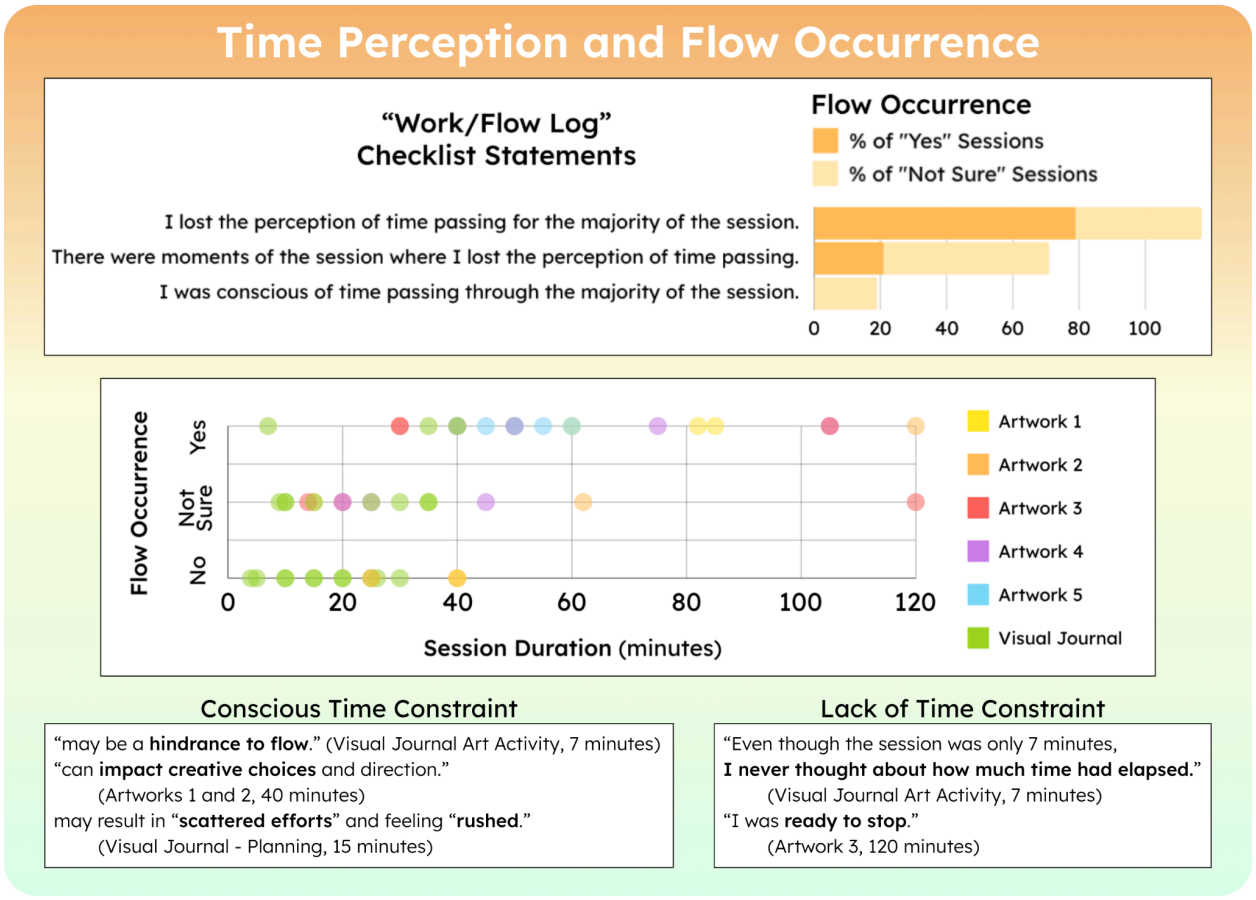


The image in Figure 10, “Artwork 1 in process with original reference imagery,” depicts an in-progress artwork that utilized a high level of choice. The base gradient, inspired by closed eyes on a sunny day, felt reminiscent of childhood summers spent outside. After painting it, the gradient was photographed and inserted into Procreate on my iPad. In order to create the reference, I overlaid a translucent photograph of the sky that I captured while visiting the town I grew up in. The interaction of the chosen imagery allowed opportunities for personal reflection and strengthened identity.

Csikszentmihalyi’s (1990) foundational research identifies the loss of time perception as a primary characteristic of flow experience. Figure 11 presents data from this study pertaining to time perception, session duration, time constraints, and flow occurrence. In an analysis of the “Work/Flow Log” checklist data, an obvious correlation was found between a lack of time perception and the increased likelihood of flow experience. Of the 19 work sessions where I qualified “Yes” for having experienced flow, 16 (79%) indicated a loss of the “perception of time passing for the majority of the session.” For the remaining “Yes” sessions, I indicated that there were “moments” in which I lost the perception of time passing. When I was “conscious of time passing for the majority of the session,” there were no recorded flow occurrences.

Figure 11

Time-Related Variable Effect on Flow Occurrence



The second chart in Figure 11 illustrates the relationship between the time of session duration, the projects, and flow occurrence. The length of sessions where I qualified "Yes" for flow occurrence spanned from seven to 120 minutes, with over half (53%) of "Yes" sessions ranging from 30 to 60 minutes. All sessions where I indicated "No" for flow occurrence were 40 minutes or less, with the majority (76%) completed in the visual journal. This may be due to the average shorter length of visual journal exercises in comparison to painting sessions. The chart

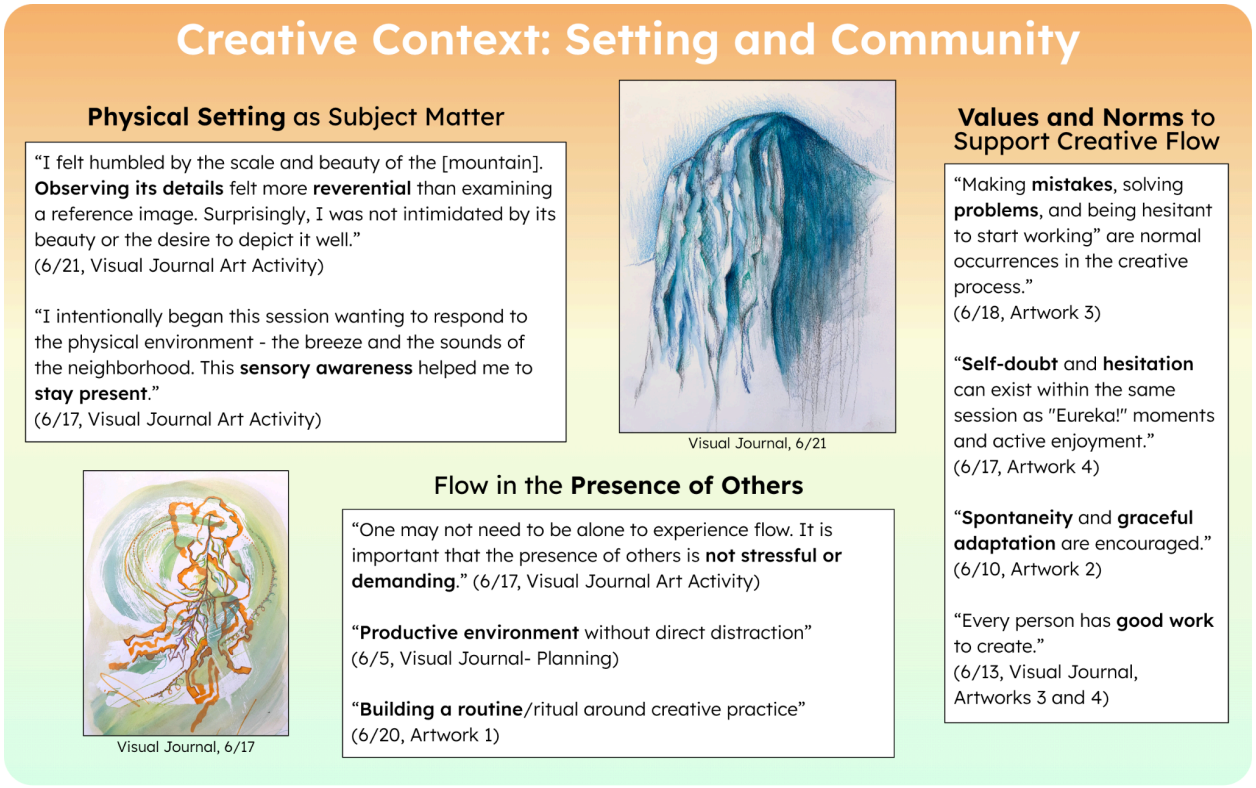
also shows that I indicated “Not Sure” for flow occurrence in eight visual journal sessions and answered “Yes” for flow occurrence in four visual journal sessions.

While the second graph indicates a slight correlation between longer session duration and flow occurrence, the results are nuanced and complex. My written responses suggest that a conscious awareness of time constraints may have more impact than actual session lengths. When a limited timeframe encouraged me to be wary of the clock, it was more difficult for me to enjoy the experience.

Figure 12 presents my written reflections about the impacts of physical setting and social presence on my art-making experience. In visual journal exercises where my intention was to create loose interpretations of direct observation in the natural environment, I felt an increase of sensory awareness and presence of mind. When I created artwork in the presence of family or strangers, I was inspired when productivity in the shared environment did not call for interaction. This experience echoes research connecting group flow occurrence to shared ideas and practices (Peifer et al., 2022). Upon discovering that flow could be reached in the presence of others, I recorded several ideas for community norms to support creative flow. These values emphasize the normalcy of mistakes, problem-solving, doubt, and hesitation in art-making experiences that also include periods of active enjoyment. When the community culture encourages “graceful adaptation” and playful spontaneity, the ability to recover from mistakes may come with greater ease.

Figure 12

Environmental Variables Associated with Flow Occurrence

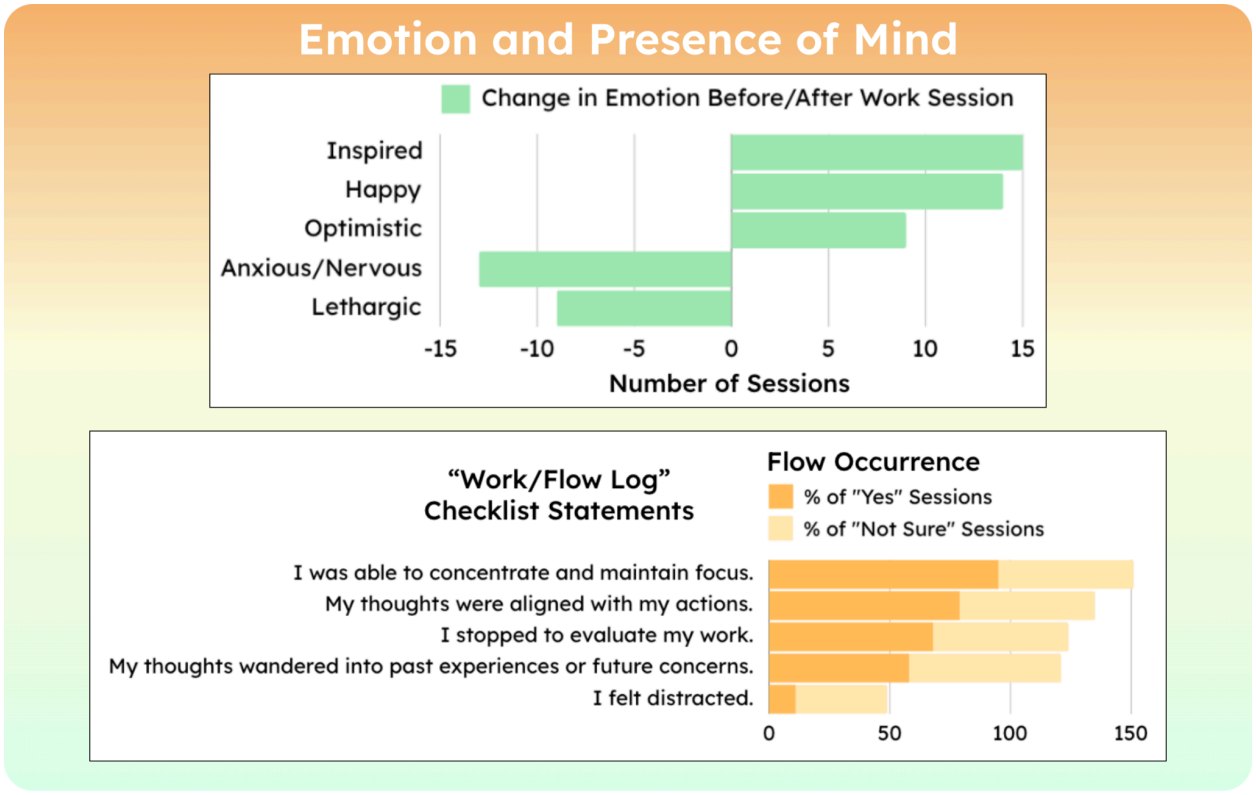


Through this art-based research, the relevance of my emotional state and ability to focus was apparent. Figure 13 depicts data pertaining to changes in emotion and presence of mind. In examining the documentation of emotions before and after all 49 work sessions, significant increases (where an emotion was not present at the start of the session but was recorded at the end of the session) were observed in inspiration, happiness, and optimism. Significant decreases (where an emotion was present at the start of the session but was absent at the end of the session) were observed in anxiety/nervousness and lethargy. Each of these emotional changes align with

the evidence of dopamine transmission associated with flow experience (van der Linden et al., 2020) and the general increase of personal well-being that can result from art-making.

Figure 13

Correlations Between Artist's Emotions, Concentration, and Flow Occurrence



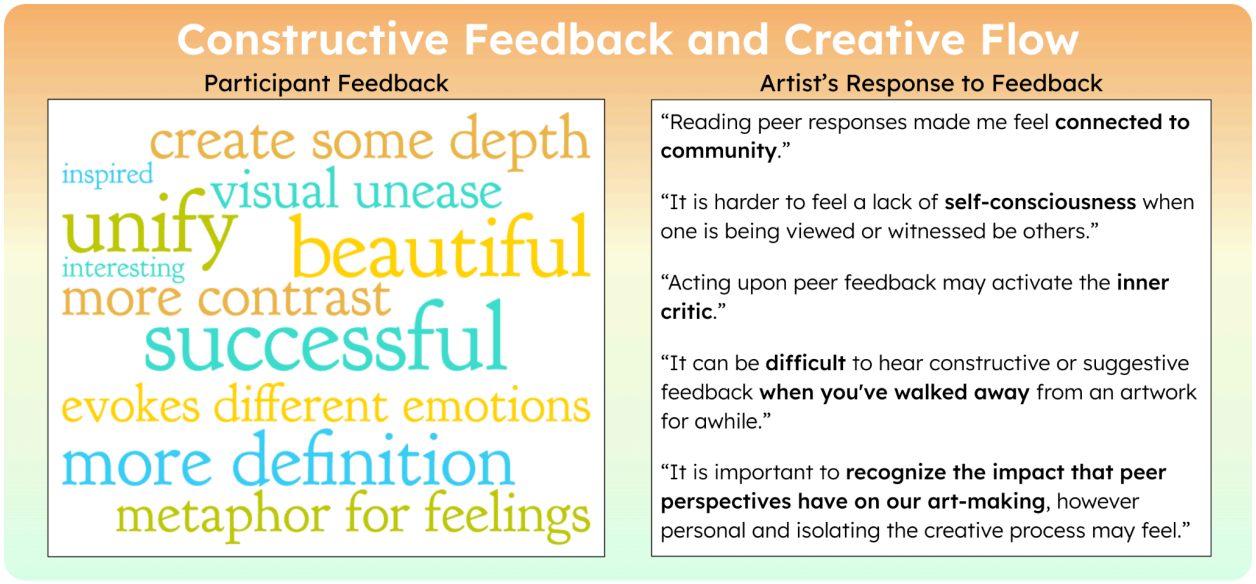
The data pertaining to presence of mind and creative flow reveals complexity. Additional "Work/Flow Log" checklist data exposed a significant correlation between concentration, focus, thought and action alignment, and higher flow occurrence rates. In only two of the 19 "Yes" sessions, I confirmed that "I felt distracted" at some point during the session. These comparisons confirm the prominence of focused attention in flow experiences (Csikszentmihalyi, 1990). Conversely, in 68% of sessions where I confirmed "Yes" for flow experience, I also indicated that "I stopped to evaluate my work." In 58% of "Yes" sessions, I indicated that "my thoughts wandered into past experiences or future concerns." These results point to the reality that moments of self-evaluation and mind-wandering can occur in close proximity to flow experience within the same session timeline (Dietrich, 2004; Harris et al., 2017).

In the mid-point critique, participants were prompted to share feedback and suggestions for improving Artworks 1 and 2. In Figure 14, word art depicts key phrases from participant feedback. To integrate this feedback into my art-based research, I recorded my initial reactions and reflections on the experiential impact of critique feedback. Excerpts from my "Work/Flow Log" written responses appear next to the word art image.

Peer responses referred to the paintings as "successful" and validated the use of sky imagery as a "metaphor for feelings." Critique participants also offered suggestions for adding "definition" and "depth" to the paintings to "unify" the series and decrease "visual unease." My written responses indicate that constructive feedback complicated my access to flow experience by increasing "self-consciousness" and activating the "inner critic." These reflections connect to the difficulty I experienced in refining Artwork 2 (see Figure 6).

Figure 14

Effects of Critique Feedback on Artist's Mindset



In addition to constructive feedback, participants were prompted to share individual interpretations of the artworks' meanings. Peer feedback (see Appendix H) included a rich variety of personal connections, including:

- "The painting reminds me of my parents (who have passed) as the sunrise and sunset often do." (Artwork 1)
- "This artwork seems to reflect the artist's overthinking, as it lacks the sense of freedom and spontaneity that comes with letting go." (Artwork 2)
- "Gilded clouds feel omniscient and intimidating. My immediate reaction is that this is heaven–gated and unattainable." (Artwork 5)

In my reflection, I shared that reading peer feedback made me feel "connected to community." This relates to Chilton (2013) and Warren's (2006) research on the positive impact of sharing interpretations of personal meaning on communal access to flow. Overall, the experience of receiving and responding to peer feedback increased my awareness of the shifting influence of peer perspectives throughout the art-making experience.

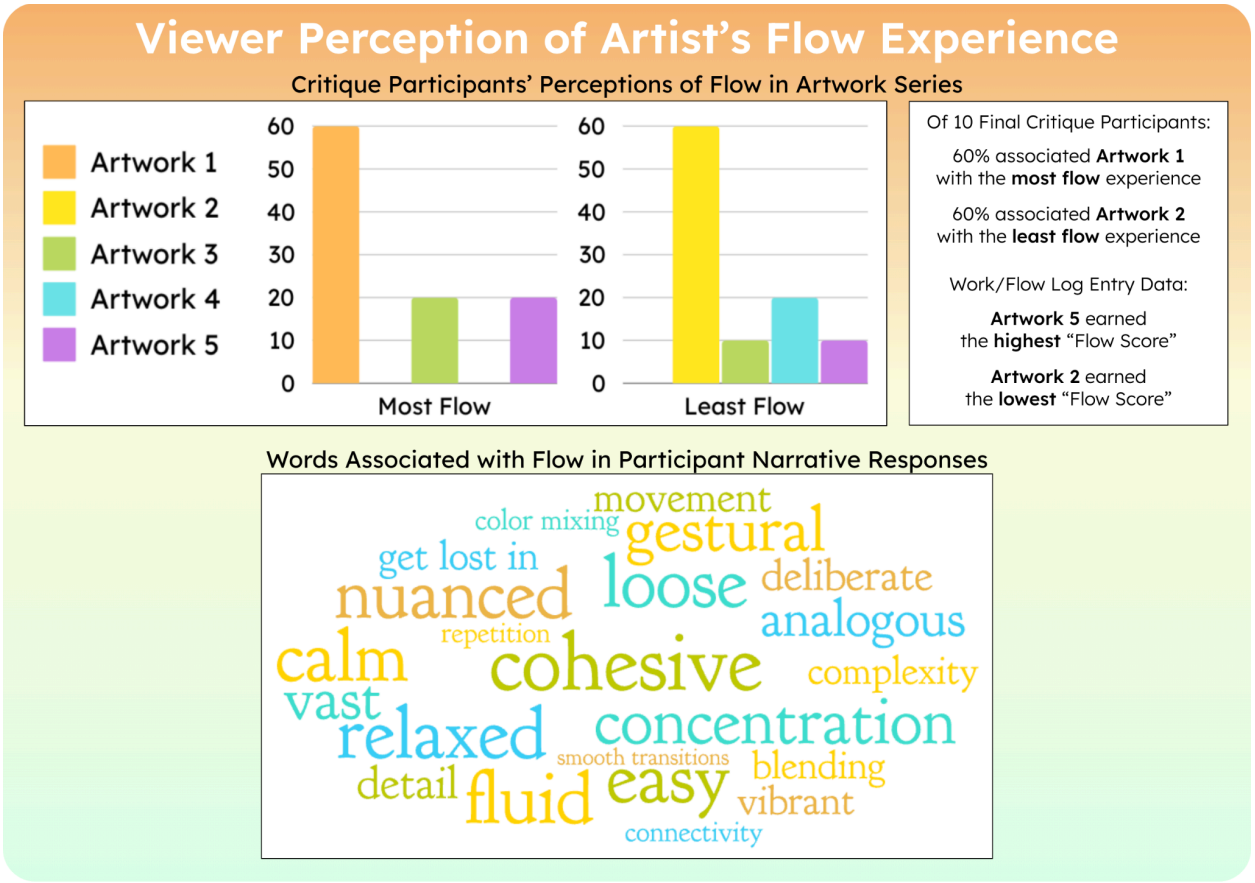
Critique participants also provided insights about their unique visual perceptions of flow in the completed artwork appearance. In the final critique, participants were presented with the five paintings and prompted to identify the artworks whose creation they assumed to evoke the most and least amount of flow experience for the artist. As visualized in Figure 15, 60% of the participants associated Artwork 1 with the most flow experience, while 60% assumed that Artwork 2 encouraged the least flow. The "Flow Score" averages depicted in Figure 5 distinguish Artwork 5 with the highest "Flow Score" and Artwork 2 with the lowest. Thus, the majority of the final critique participants were correct in their assumption of Artwork 2. While the majority were not correct in their assumption of the artwork with the highest flow, their narrative responses provide insights about how flow experience may be perceived by teachers when viewing completed artwork.

The word art depicted in Figure 15 includes excerpts from the midpoint and final critique participants identifying visual qualities they associated with flow in the painting series. Participants cited a range of descriptive words suggesting harmony and ease, such as "fluid," "connectivity," and "relaxed." These perceptions of the completed artworks may hold a degree of validity (as evidenced in the Figure 15 bar graphs), but it is important to emphasize their subjectivity and lack of total accuracy. After a visual journal watercolor exercise on June 8th, I

reflected in a "Work/Flow Log" entry, "By looking at the end result of the painting, one might assume that flow was experienced, but this does not hold true for this instance. The interruption and interactive presence of family members took my mind out of the action, though I was still able to complete the activity as visually desired."

Figure 15

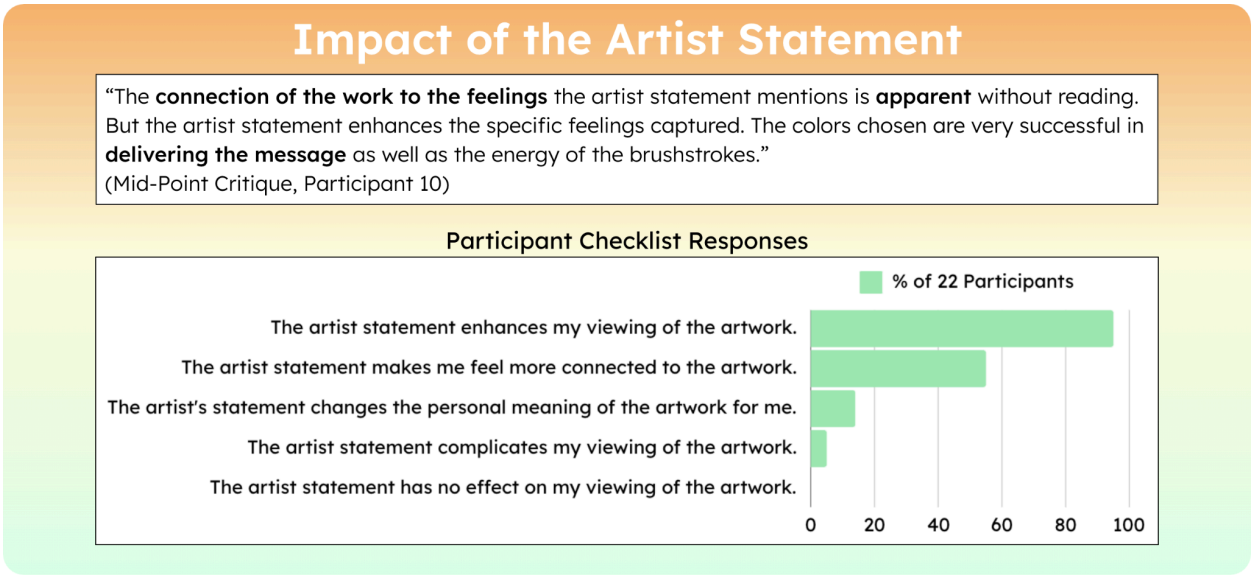
Perceptions of Flow in Artworks



After providing unique interpretations of the artworks, participants were presented with the written artist statement (included in Appendix G). Figure 16 displays data pertaining to the viewer's perceived impact of the artist statement on their understanding of or connection to the artwork series. Of the 22 participants, 21 (95%) felt the artist statement enhanced their viewing of the paintings. Over half (55%) of participants felt more connection to the artwork after reading the artist statement. Significantly, all of the participants acknowledged that reading the artist statement affected their viewing of the artwork in some way. In their narrative responses, several participants referred to an enjoyment of the critique process: forming their own initial interpretations of meaning, reading the artist statement, and reflecting back on the artworks with a fresh perspective.

Figure 16

Critique Participants' Reception of Artist Statement



Of the 22 educators who participated in the mid-point and final critiques, eight (36%) had a pre-existing knowledge of Csikszentmihalyi's (1990) flow theory. When presented with its definition (see Appendix F), 11 (50%) of the participants stated that they discuss creative flow (or the associated experience of heightened concentration/engagement) with their students. Their narrative responses (see Appendix I) included rich descriptions that are relevant to this study:

- "There is nothing better than entering a state of flow. Time stops, you have all the energy in the world, and you are communicating in such a pure way! I talk to my students about this all of the time, and try to help them find ways of learning to get to that on their own (which is REALLY HARD in an elementary classroom). I try to facilitate this with the use of headphones, or silent working time with lo-fi music and asking the kids to imagine they are grown up artists working in their own studio. While I think that few achieve flow in this setting, I think some can! Then getting them to leave the art room is a whole other can of worms!"
- "Students cite that they have experienced flow states through drawing or athletics."
- "I talk to my students about being in the creative zone which is when time stands still. We talk about how to identify it and that it isn't always easy to get there but when you are there you don't want to leave."
- "I try to begin each semester with mindfulness art activities and tips for inducing the flow state. This also helps students gain confidence in their artmaking with more emphasis on process over final product."

Conclusion

This research stemmed from a curiosity for the relevance and applicability of flow theory in art education. The design of this art-based research study remained broad enough to include measurements of artistic behaviors and personal growth outcomes that are not exclusively linked to flow. The results, obtained through close analysis of "Work/Flow Log" entries and peer critique input, revealed complex relationships between activity parameters, work setting environment, and the artistic experience. Emerging insights resonate with studies examined in the literature review, such as the correlation between concentration, control, distorted time perception, intrinsic motivation, and higher rates of flow occurrence (Abuhamdeh, 2020; Csikszentmihalyi, 1990). When artistic confidence was strengthened through gained experience (Chilton, 2013), risk-taking and decision-making occurred seamlessly in the flow experience (Peifer et al., 2022). As emphasized by Gude (2007) and Warren (2006), spontaneity and improvisation were linked to self-trust and intuitive guidance. In exploring a chosen metaphor in the creation of five paintings, meaningful connections were made to the artist's identity (Gude, 2007) and in feedback shared by critique participants (Chilton, 2013; Peifer et al., 2022). Additionally, the art-based research findings suggest considerations for implementing flow-conducive teaching practices with art-specific materials, methods, and community norms. These insights and relevant applications to my teaching practice are explored further in the next chapter.

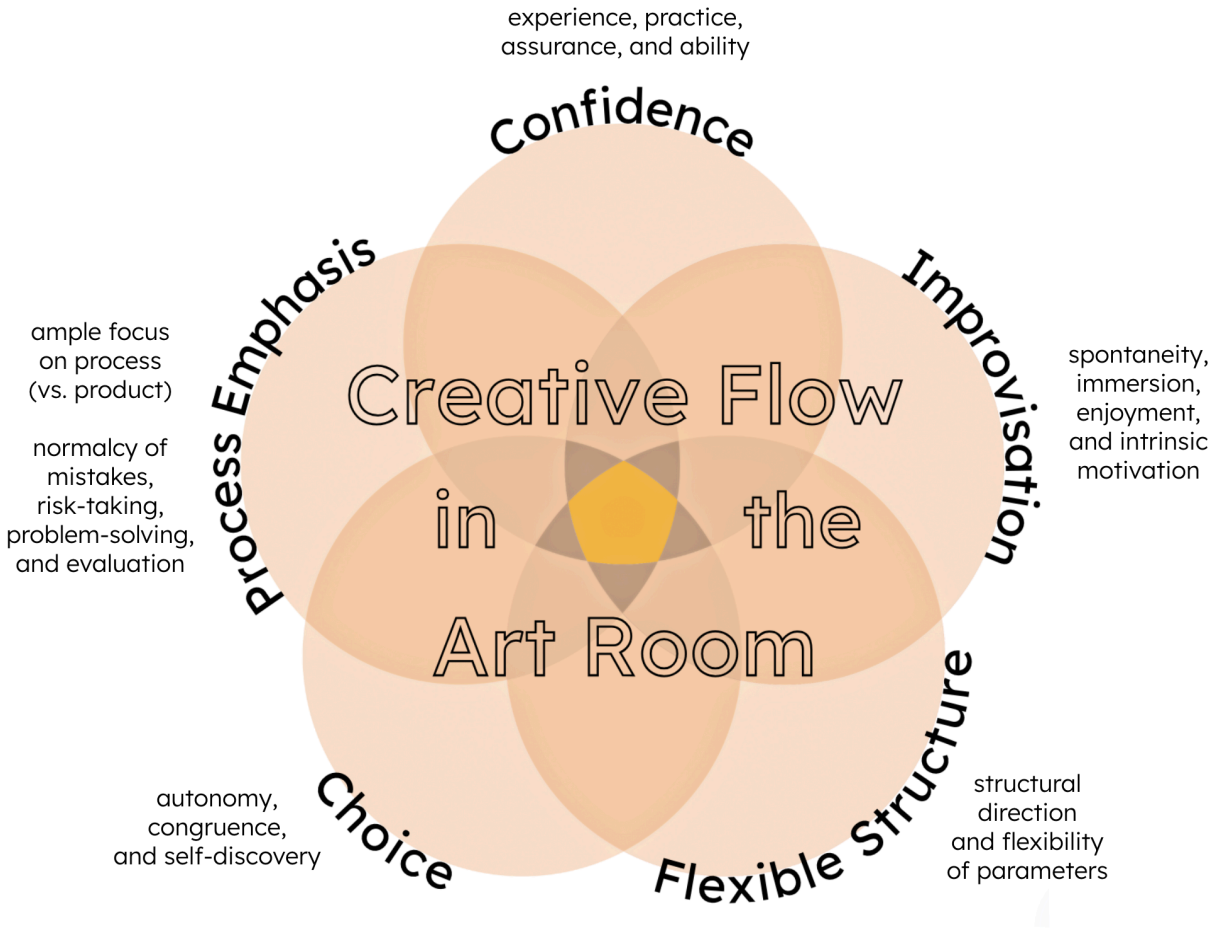
Discussion

This study began with a concern for the observed decrease in students' focused engagement and a curious fascination for Csikszentmihalyi's (1990) flow theory. As relevant research revealed the myriad educational and personal benefits of creative flow in school settings (Peifer et al., 2022), I wondered how a deeper understanding of flow experience might provide fresh perspectives on sustained concentration in art-making. In designing this art-based research study, my aim was to position myself as both an artist and a researcher, oscillating between my engagement with the creative process and the examination of its applicability to my work with students in the high school art room. My research findings echoed the literature in highlighting the beneficial outcomes of creative flow: heightened engagement, enjoyment, intrinsic motivation, and self-discovery.

Through the process of creating a series of paintings, experimenting with art activity parameters in my visual journal, documenting the art-making experience via "Work/Flow Log" entries, and collecting feedback in peer critiques, patterns in the qualitative data exposed pedagogical themes. These discoveries reveal parallels to current instructional methods, as well as pointed opportunities to evolve. Key insights are grouped into categories depicted in Figure 17: "Artistic Confidence," "Improvisation," "Flexible Structure," "Choice," and "Process Emphasis." Each category overlaps and enhances the others, calling on art-specific practices, community norms, and environmental considerations to support and mobilize the creative flow experience.

Figure 17

Insight Categories for Supporting Creative Flow in the Art Room



In this final chapter, I elaborate on how these core insights will impact my work with students in the context of the high school art classroom. I also recognize the limitations of the study, identify opportunities for continued research, and reflect on my growth as both an educator and an artist through the art-based research process.

Implications

The exploration of flow theory literature inspired me to pursue flow in my art-making. With deepening understanding about the benefits of flow experience, I found myself relishing in the creative process. I was grateful to be spending time engaged in an activity that I perceived to be positive for my cognitive and emotional health. Chilton (2013) and Warren (2006) emphasize the influence of shared perspectives in creative communities. In teaching my students about flow theory directly, I will provide opportunities for students to make relevant connections to their lived experiences. I will encourage my students to consider where flow may already be present in their lifestyles and empower them to seek it through beneficial means.

In addition to explicit instruction about the principles of flow, I will implement strategies that take root in this study. Each of the insight categories depicted in Figure 17 connect to instructional design, art-specific methods and materials, and classroom norms. These instructional practices will work together to increase student access to flow.

Artistic Confidence

In her distinguished research on the dynamics of flow experience in creative activity, Doyle (2017) recognizes a correlation between creative flow and the accrual of artistic skills. Lived creative experience, technical practice, risk-taking and familiar routines contribute to a sense of confidence and trust. These findings will inform my interactions with students as they navigate the creative process. I will encourage students to anticipate and persist through periods of self-doubt and hesitation. Students will utilize reflective visual journal prompts, such as pre-post-lesson exercises, to document the development of skills over time. The classroom cultural

norms will support the idea that there are multiple methods for obtaining a desired visual outcome, allowing individual students to develop unique routines in their approach to the craft.

As observed in this art-based research study, integrating personal choice in projects that involve a gradual release of control (Schmidt, 2010) supports a natural progression of the skill-to-challenge balance. As students gain confidence in a technique or medium, they are gently encouraged to push the boundaries of their current abilities (Csikszentmihalyi, 1990). When reflective practices (such as writing, visual journaling, and group discussion) recognize the frequency of student flow experiences, they will also acknowledge the impermanence of creative difficulties. My instruction will emphasize that artistic ability and confidence are developed over time. It may first take effort for engagement to feel effortless.

Improvisation

When a process holds a degree of familiarity and the artist is free to diverge, improvisation encourages immersive engagement. Warren (2006) presents creative spontaneity as the artist's joyful fulfillment of intuition. The results of this art-based study aligned with recent research emphasizing the prevalence of improvisation in creative flow experiences (Rosen et al., 2024). In work sessions that involved periods of moment-to-moment spontaneity, I felt a sense of playful ease and personal congruence. In a pointed effort to bring more opportunities for spontaneity to the curriculum, I will facilitate activities emphasizing abstraction, sensory awareness, and material experimentation. Following the lead of Olivia Gude (2007), I intend to encourage a departure from realism through expressionist style art activities. I will examine my curriculum and integrate more opportunities to explore intuitive mark-making, loose abstraction, and playfulness with material.

Flexible Structure

Flow-conducive activities balance structural direction with parameter flexibility. In creating the painting series and visual journal exercises, I observed the coexistence of task-orientation and creative liberties in moments where I felt in flow. This idea is supported by research exploring flow occurrence in education (Mansour et al., 2017; Schmidt, 2010). Creative flow exists within a spectrum of freedom and constraint. The selection of materials, format, technique, subject matter, and theme refer to this spectrum and affect the artist's sense of direction and control. To encourage flow, I will balance instructional directives that focus on specific skill development with opportunities for choice and spontaneity. The use of cloud imagery as reference for abstraction exemplified parameter flexibility. Similarly, when students embark on a self-directed project, I will encourage them to develop a degree of structure that motivates them toward a path while also allowing dynamic and unpredictable outcomes. My instruction will bring attention to the role that flexible boundaries play in the creative process and empower students to address their fluctuating needs for both freedom and direction.

Student Choice

Opportunities for choice increase engagement, personal congruence, and self-discovery. Integrating one's individual interests and aesthetic preferences can foster the development of artistic identity and add enjoyment to the experience. In educational settings, Schmidt (2010) emphasized student autonomy as more flow-conducive than the skill-to-challenge ratio. This aligns with "Work/Flow Log" entry data from my art-based research in which decision-making, intrinsic motivation, and a sense of control were highly associated with flow experience.

Though I regularly integrate significant levels of student choice in my instructional design, I plan to amplify the presence and power of creative decision-making in my day-to-day interactions with students. Taking suggestion from Warren's (2006) research, I will encourage student autonomy and responsibility by shining a spotlight on elements of the creative process that impact flow: persistence, intention, and attitude. In addition to choice of material or subject matter, students make decisions (whether they are conscious of it or not) about the mindset and effort level they bring to the creative experience. In modeling these attitudes through ideation demonstrations and the sharing of my works in progress, I hope to inspire students to follow the lead of their natural inclinations.

Campbell (2011) and Eisner (2002) position art-making as a playground for the pursuit of personal meaning. In this study, the exploration of chosen metaphors, reference imagery, and preferential color schemes contributed to rich personal insights and feelings of congruence between the work and my current life experience. I will collaborate with students to identify relevant themes (Gude, 2007) and respect when a student needs to bend project parameters to pursue personal meaning.

Process Emphasis

The artistic process is nuanced and multi-faceted, including peaks and valleys of enjoyment and difficulty. It is not possible to know an artist's process by assessing the artwork alone. As revealed in this study (see Figure 13), viewer perception of flow evidence in artworks is not reliably accurate. Artist statements can enhance the viewer's connection to the artwork and increase the artist's sense of community belonging. This points to the importance of reflective writing and group discussions about the process of art-making. To support the development of

flow-conducive community values, I will facilitate group dialogue after targeted work sessions for students to share reflections on the influence of activity parameters (environment, attitude, material constructs, social presence, etc). These discussions will move critical focus away from the results (artwork) and encourage shared appreciation for the process of art-making.

Normalizing the presence of mistakes, risk-taking, self-evaluation, and doubt can encourage the artist forward. Students may be intimidated to create in an environment that bestows higher value on the appearance of finished artworks than the rich personal growth that can happen in the creative process. Art education frameworks such as Studio Habits of Mind (Hetland et al., 2013) and Teaching for Artistic Behavior (Douglas & Jaquith, 2018), along with the National Core Arts Standards (National Coalition for Core Arts Standards, 2015) acknowledge valuable learning outcomes in all corners of the art-making process. Emphasizing the benefits that come through immersion in the experience (rather than the sheer visual aesthetics of its outcome) can increase flow and amplify personal growth.

Limitations

The execution of this research study was impacted by circumstantial factors. Due to the timing of the data collection period aligning with summer recess, the majority of my work sessions took place in my home studio. At times, the distraction of my family's presence mirrored the social distraction my students may face in the classroom. At other times, I worked alone for longer periods without interruption. This may have resulted in a more flow-conducive environment than the usual bustle of the lively classroom.

In creating the series of paintings and visual journal exercises, I did not utilize all of the materials or techniques listed on the "Art Activity Variables" worksheet (Appendix D). Aside

from two work sessions where I carved a linoleum block, all other endeavors were limited to painting, drawing, and writing. This presents a limitation in my research because, as Banfield and Burgess (2013) distinguished, flow occurrence can vary widely between two-dimensional and three-dimensional art forms. This relates to an additional complication: the large scope of variability in the project's design. As the research question was open-ended, it was a challenge to pinpoint areas of focus amidst work session variables. The high amount of tracked variables (mood, environment, material, goal, technique, and over 40 feeling and actions statements) made it difficult to identify strong correlations in the data. While the findings are meaningful in the context of my teaching practice, they merely scratch the surface of potential discoveries in this area of research.

Recommendations

The intersection of art education and flow theory is ripe with opportunities for further study. The insights gleaned through this project point to specific avenues for continued inquiry. Targeted studies could explore correlations between individual methods and materials (i.e. watercolor washes, throwing bowls on the pottery wheel, or hyperrealism drawing) and flow occurrence. This work would begin to fill the gap in existing literature surrounding flow experience in art-specific practices. To build on the link between creative flow and improvisation (Rosen et al., 2024), continued research could focus on the relationship between repetition and spontaneity in creative flow experiences.

With regards to curriculum, I am interested in exploring how the intentional pursuit of flow experience may align with key components of the National Core Arts Standards (National Coalition for Core Arts Standards, 2015). Similarly, it would be beneficial to conduct studies

examining the prevalence of flow experiences in art programs utilizing the Studio Habits of Mind (Hetland et al., 2013) and the principles of Teaching for Artistic Behavior (Douglas & Jaquith, 2018). Additionally, I want to investigate the social-emotional impact of creating outdoors in direct observation to the natural setting. These potential research efforts are relevant to the context of my specific teaching practice and could result in expanded opportunities for my students to gain lasting personal growth from their creative endeavors.

Conclusion

The extending span of flow theory research alludes to the relevance of its principles in all of our lives. This study allowed me to re-frame my approach to teaching and rediscover myself as an artist-teacher. Immersed in the experience of painting cloudscapes that were personally meaningful to me, I reflected on the function of art-making as a tool for self-care. The dynamic process provided a safe route for me to practice graceful adaptation and feel my inner critic soften.

As I reflect on the experience of conducting this study, I am reminded of the aspirations that brought me here. I have been witness to the harmonious buzz of an art classroom in flow. I want to do better to co-create that positive and productive energy with my students. Through the process of my art-based inquiry, I gained a deeper perspective of Csikszentmihayi's (1990) flow theory from the inside out. The experience cemented my understanding of its value in the classroom and provided insights that will inform my teaching practices moving forward.

Regular engagement with art-making will authenticate my position as a facilitator of flow. My guidance will encourage students to consider artistic confidence a valuable trait obtained through the accrual of experience and self-trust. With increased student confidence, I

will provide targeted opportunities for students to improvise and explore abstraction, expression, and playfulness with material. Student growth will be supported by flexible instructional parameters, providing directional focus and room for choice. The presence of choice in the curriculum will emphasize student autonomy and the opportunity to gain personal meaning in the exploration of selected metaphors. I will collaborate with students to build a community culture that values the experience of creativity and normalizes the reality of mistakes, risk-taking, critical feedback and moments of doubt. These classroom norms will contribute to the development of artistic confidence, and in turn, widen student pathways to the cognitive and mental health benefits of creative flow.

References

Abuhamdeh S. (2020). Investigating the "flow" experience: Key conceptual and operational issues. *Frontiers in Psychology*, *11*. Article 158. https://doi.org/10.3389/fpsyg.2020.00158

Abuhamdeh, S., & Csikszentmihalyi, M. (2012). The importance of challenge for the enjoyment of intrinsically motivated, goal-directed activities. *Personality & Social Psychology Bulletin, 38*(3), 317–330. https://doi.org/10.1177/0146167211427147

Campbell, L. (2011). Holistic art education: A transformative approach to teaching art. *Art Education, 64*(2), 18–24.

Chilton, G. (2013). Art therapy and flow: A review of the literature and applications. *Art Therapy: Journal of the American Art Therapy Association*, *30*(2), 64–70.

Cseh, G. (2016). Flow in creativity: A review of potential theoretical conflict. In Harmat, L., Andersen, F. Ø., Ullén, F., Wright, J., & Sadlo, G. (Eds.), *Flow experience: Empirical research and applications.* Springer International. http://doi.org/10.1007/978-3-319-28634-1_6

Cseh, G. (2017, May). *Ambiguous feedback, control and creative flow: A qualitative investigation of flow with fine artists and graphic designers.* [Poster]. Buckinghamshire New University. https://doi.org/10.13140/RG.2.2.13448.62729.

Csikszentmihalyi, M. (1990). *Flow: The psychology of optimal experience.* Harper & Row.

Csikszentmihalyi, M. (2013). *Creativity: Flow and the psychology of discovery and invention.* Harper Perennial.

Csikszentmihalyi, M. (2014). *Applications of flow in human development and education.*

Springer.

Dietrich, A. (2003). Functional neuroanatomy of altered states of consciousness: The transient hypofrontality hypothesis. *Consciousness and Cognition, 12*(2), 231–256. https://doi.org/10.1016/S1053-8100(02)00046-6

Dietrich, A. (2004). Neurocognitive mechanisms underlying the experience of flow. *Consciousness and Cognition, 13*(4), 746–761. https://doi.org/10.1016/j.concog.2004.07.002

Dietrich, A. (2004). The cognitive neuroscience of creativity. *Psychonomic Bulletin & Review, 11*(6), 1011–1026. https://doi.org/10.3758/bf03196731

Douglas, K. M., & Jaquith, D. B. (2018). *Engaging learners through artmaking: Choice-based art education in the classroom (TAB)* (2nd ed.). Teachers College Press.

Doyle, C. (2017). Creative flow as a unique cognitive process. *Frontiers in Psychology, 8*: Article 1348.

Efron, S., & Ravid, R. (2013). *Action research in education: A practical guide.* The Guilford Publications.

Eisner, E. (2002). *The arts and the creation of mind.* Yale University Press.

Efland, A. (2002). *Art and cognition: Integrating the visual arts in the curriculum.* Teachers College Press.

Elhai, J. D., Gallinari, E. F., Rozgonjuk, D., & Yang, H. (2020). Depression, anxiety and fear of missing out as correlates of social, non-social and problematic smartphone use. *Addictive Behaviors*, *105*, n. page.

Fauzi, M. A., Harun, S. A., Martin, T., Paiman, N., Hussin, M. S. F., & Hussin, F. (2021). Smartphone addiction among young adolescents: Integration of flow theory and fear of missing out. *International Journal of Information and Management Sciences, 32*(1), 39–58.

Gold, J. & Ciorciari, J. (2020). A review on the role of neuroscience of flow states in the modern world. *Behavioral Sciences, 10*(9), 137. https://doi.org/10.3390%2Fbs10090137

Gude, O. (2007). Principles of possibility: Considerations for a 21st-century art & culture curriculum. *Art Education, 60*(1), 6–17.

Harris, D., Vine, S., & Wilson, M. (2016). Neurocognitive mechanisms of the flow state. In M. R. Wilson, V. Walsh, & B. Parkin (Eds.), *Progress in brain research: Sport and the brain: The science of preparing, enduring and winning, part B* (Vol. 234, pp. 221–243). Elsevier. http://dx.doi.org/10.1016/bs.pbr.2017.06.012

Hetland, L., Winner, E., Veenema, S., & Sheridan, K. M. (2013). *Studio thinking 2: The real benefits of visual arts education.* Teachers College Press.

Hogan, J., Jaquith, D., & Gould, L. (2020). Shifting perceptions of quality in art education. *Art Education*, *73*(4), 8–13. https://doi.org/10.1080/00043125.2020.1746161

Johnson, A. (2015). Creativity and intuition. *Journal of Gifted Education and Creativity, 2*(2), 9-21.

Kara, M. (2021). High schooler's usage intensity of mobile social media and nomophobia: Investigating the mediating role of flow experience. *Participatory Educational Research, 8*(1), 409–422.

Leavy, P. (2020). *Method meets art: Arts-based research practice.* (3rd ed.). The Guilford Press.

Mansour, M., Martin, A. J., Anderson, M., & Gibson, R. (2017). Getting into flow in the arts classroom: Research findings and implications for practice. *Educational Practice and Theory*, *39*(2), 5–15. https://doi.org/10.7459/ept/39.2.02

Martin, B. H., & Colp, S. M. (2022). Art making promotes mental health: A solution for schools that time forgot. *Canadian Journal of Education, 45*(1), 156–183.

National Coalition for Core Arts Standards. (2015). *National Core Arts Standards.* https://www.nationalartsstandards.org/

Omasta, M., Graham, M., Milling, S. L., Murray, E., Jensen, A. P., & Siebert, J. J. (2021). Social emotional learning and the national core arts standards: A cross-disciplinary analysis of policy and practices. *Arts Education Policy Review*, *122*(3), 158–170.

Peifer, C., Wolters, G., Harmat, L., Heutte, J., Tan, J., Freire, T., Tavares, D., Fonte, C., Andersen, F.O., van den Hout, J., Šimleša, M., Pola, L., Ceja, L. & Triberti, S. (2022). A scoping review of flow research. *Frontiers in Psychology, 13.* Article 815665. https://doi.org/10.3389/fpsyg.2022.815665

Rheinberg, F., Vollmeyer, R. & Engeser, S. (2023). The acquisition of the flow experience (R. R. Sreeramoju, Trans.). In J. Stiensmeier-Pelster & F. Rheinberg (Eds.), *Diagnostics of motivation and self-concept* (pp. 261-279). Göttingen: Hogrefe. (Original work published 2002)

Rosen, D., Yongtaek, O., Chesebrough, C., Zhang, F., & Kounios, J. (2024). Creative flow as optimized processing: Evidence from brain oscillations during jazz improvisations by expert musicians. *Neuropsychologia, 196*(108824), 1–11.

Schmidt, J. (2010). Flow in education. In Peterson, P., Baker, E., & McGaw, B. (Eds.),

International Encyclopedia of Education (pp. 605–611). Elsevier Ltd. https://doi.org/10.1016/B978-0-08-044894-7.00608-4

Shipe, R. (2016). A story of how one teacher/researcher/artist learned to use arts-based research. *Art Education*, *69*(3), 26–34.

Sylwester, R. (1998). Art for the brain's sake. *Educational Leadership, 56*(3), 31–35.

Ullén, F., Manzano, O., Almeida, R., Magnusson, P. K., Pedersen, N. L., Nakamura, J., Csikszentmihalyi, M., & Madison, G. (2012). Proneness for psychological flow in everyday life: Associations with personality and intelligence. *Personality and Individual Differences, 52*(2), 167–172. https://doi.org/10.1016/j.paid.2011.10.003

van der Linden, D., Tops, M., & Bakker, A. (2020). Go with the flow: A neuroscientific view on being fully engaged. *European Journal of Neuroscience, 53*(4), 947–963.

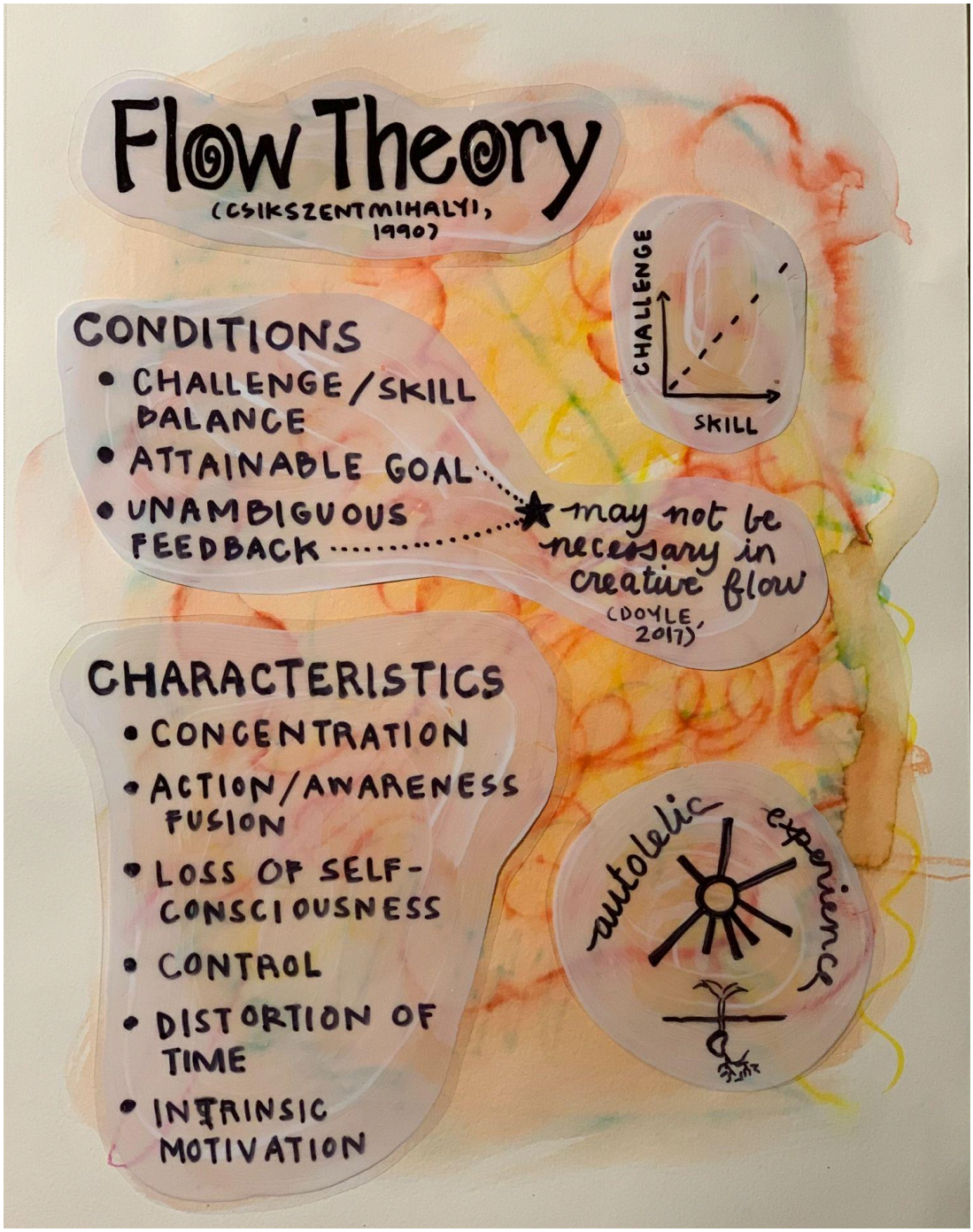
Warren, S. (2006). An exploration of the relevance of the concept of "flow" in art therapy. *International Journal of Art Therapy: Inscape*, *11*(2), 102–110.

Zhang, K., Chen, C., Zhao, S., and Lee, M. (2014). Compulsive smartphone use: The roles of flow, reinforcement motives, and convenience. *International Conference on Interaction Sciences*.

Zhao, H., & Wagner, C. (2023). How TikTok leads users to flow experience: investigating the effects of technology affordances with user experience level and video length as moderators. *Internet Research, 33*(2), 820–849.

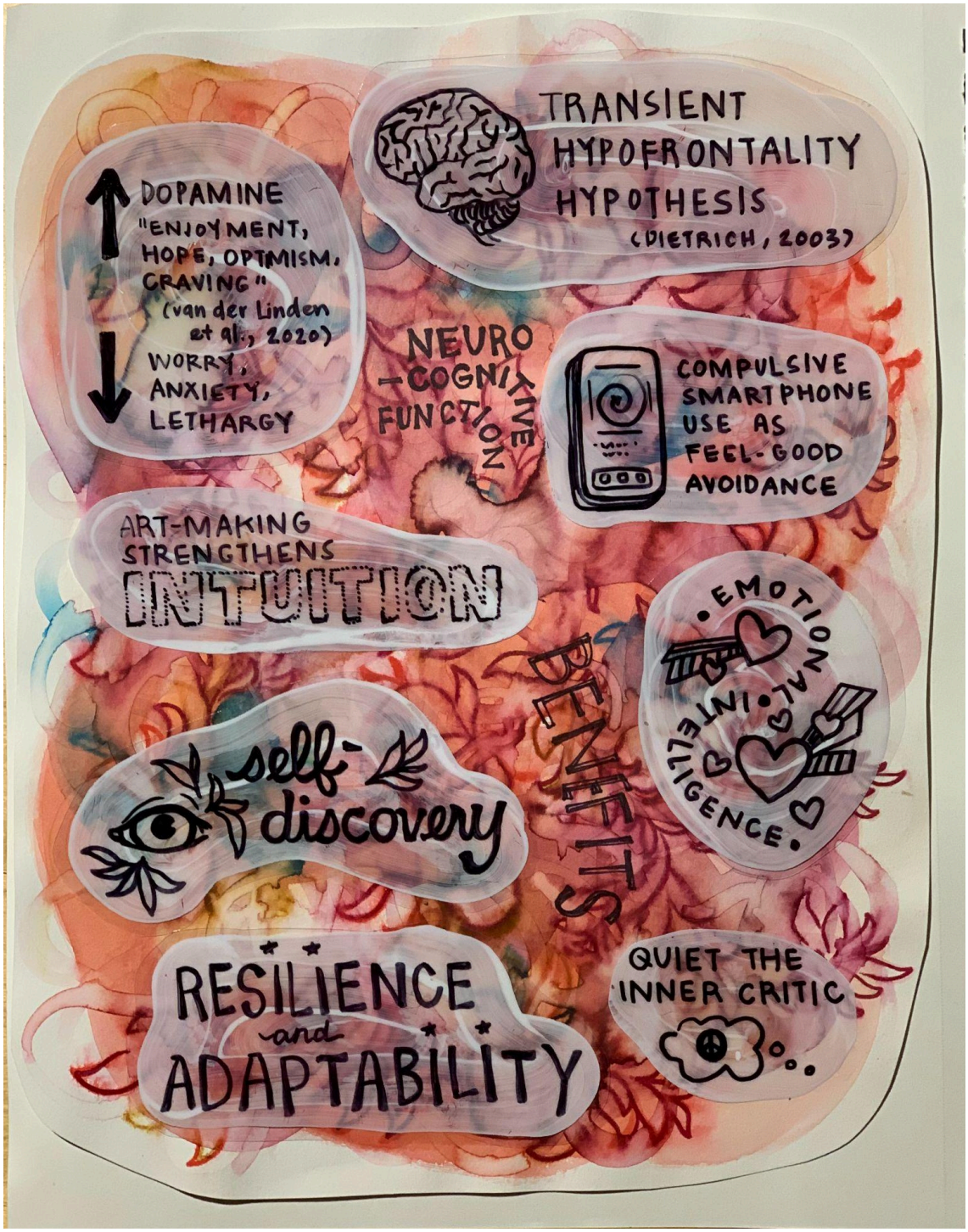
Appendix A

Visual Journal Page: Literature Review Reflection 1



Appendix B

Visual Journal Page: Literature Review Reflection 2



Appendix C

Visual Journal Page: Literature Review Reflection 3

Appendix D

Art Activity Variable Worksheet

Art Activity Variables

Environment	Materials	Artistic Methods/ Techniques	Format + Other Considerations
Location: ☐ Home Studio ☐ Backyard ☐ Art Classroom ☐ Classroom Garden ☐ Coffee Shop ☐ Park/Nature _____ Ambience: ☐ Active/ Energetic ☐ Calm/ Subdued _____ Music: ☐ None ☐ Speakers ☐ Headphones ☐ Vocals ☐ No Vocals ☐ Podcast _____ Social Presence: ☐ Alone ☐ Family ☐ Friend ☐ Stranger _____ Time Constraint: ☐ 30 minutes ☐ 60 minutes ☐ 90 minutes ☐ unlimited	☐ Acrylic ☐ Watercolor ☐ Watercolor Marker ☐ Watercolor Pencil ☐ Marker ☐ Ink Pen ☐ Colored Pencil ☐ Graphite ☐ Charcoal ☐ Clay ☐ Wood ☐ Plaster Gauze ☐ ___	☐ Goal-Setting ☐ Improvisation ☐ Color Theory ☐ Reference Imagery ☐ No Reference ☐ Direct Observation ☐ Gesture ☐ Sketching ☐ Realism ☐ Abstraction ☐ Non-Representational ☐ Conceptual ☐ Composition ☐ Mark-Making ☐ Repetition ☐ Symmetry ☐ Juxtaposition ☐ Underpainting ☐ Pointillism ☐ Optical Color Mixing ☐ Dry Brushing ☐ Glazing ☐ Impasto ☐ Layering ☐ Sgraffito ☐ Additive ☐ Subtractive ☐ ___	☐ 2D ☐ 3D _____ ☐ Journal ☐ Artwork _____ ☐ Small (8x10” or less) ☐ Medium (8x10” - 2x2’) ☐ Large (2x2’ or more) _____ Skill is ___ for challenges. ☐ Too low ☐ Appropriate ☐ Too high _____ ☐ Goal/Plan ☐ Unplanned/ Improvised _____ ☐ Feedback ☐ No Feedback

Appendix E

Work/Flow Log

Work/Flow Log

Initial Work Session Descriptors

1. At the start of this session, I felt:

Check all that apply.

- [ ] Happy
- [ ] Motivated
- [ ] Anticipatory
- [ ] Inspired
- [ ] Hopeful/Desiring
- [ ] Optimistic
- [ ] Worried
- [ ] Anxious/Nervous
- [ ] Energetic
- [ ] Lethargic
- [ ] Physical Discomfort
- [ ] Irritated
- [ ] Neutral
- [ ] Other: _____

2. Session Goal

_____

3. Activity

Check all that apply.

- [ ] Visual Journal
- [ ] Artwork 1
- [ ] Artwork 2
- [ ] Artwork 3
- [ ] Artwork 4
- [ ] Artwork 5
- [ ] Other: _____

4. Length of Session (in minutes)

_____

5. Work Setting

Check all that apply.

- [ ] Home Studio
- [ ] Art Classroom
- [ ] Art Classroom Garden/Patio
- [ ] Backyard
- [ ] Other: _____

6. Work Environment Ambience

Check all that apply.

- [ ] Active / Energetic
- [ ] Calm / Subdued
- [ ] Combination of Energetic and Calm
- [ ] Other: _____

7. Work Environment Music

Check all that apply.

- [ ] No Music - Ambient Sounds
- [ ] Music playing from Speakers
- [ ] Music playing in Headphones
- [ ] Music with Vocals
- [ ] Music without Vocals
- [ ] Other: _____

8. Social Presence of Session

Check all that apply.

- [ ] Alone
- [ ] Family Presence
- [ ] Friend Presence
- [ ] Stranger Presence
- [ ] Other: _____

9. Materials Used

Check all that apply.

- [ ] Watercolor
- [ ] Watercolor Marker
- [ ] Watercolor Pencil
- [ ] Acrylic
- [ ] Marker
- [ ] Colored Pencil
- [ ] Graphite
- [ ] Clay
- [ ] Other: _____

10. Describe what was accomplished during this session. What did you do?

_____

11. Designate any phases of the Creative Process that were activated during this session.

Check all that apply.

- [ ] Preparation (ideation, research, brainstorm)
- [ ] Incubation (walking away from idea, germination, mind wandering)
- [ ] Illumination (insight, solution, motivation)
- [ ] Verification (execution, production)
- [ ] Reflection

Flow Indicators

12. During this session, I felt the following relationship between skill and challenge:

Check all that apply.

- [ ] The challenge surpassed my skill level.
- [ ] The challenge was appropriate for my skill level.
- [ ] The challenge did not meet my skill level.
- [ ] Other: _____

13. Describe the experience of time passing during this session.

Check all that apply.

- [ ] I was conscious of time passing through the majority of the session.
- [ ] There were moments of the session where I lost the perception of time passing.
- [ ] I lost perception of time passing for the majority of the session.
- [ ] The session felt too long.
- [ ] The session felt too short.
- [ ] The session felt like the appropriate amount of time.
- [ ] Other: _____

14. Select the statements that were true for the majority of this work session.

Check all that apply.

- [ ] I was able to concentrate and maintain focus.
- [ ] My thoughts were aligned with my actions.
- [ ] I felt immersed in the experience of creating.
- [ ] I felt in control of my actions.
- [ ] I felt a sense of ease and enjoyment.
- [ ] I felt a lack of self-consciousness.
- [ ] I felt that my actions were important or purposeful. (adapted from Rheinberg et al., 2023)
- [ ] I felt motivated by the process of creating.
- [ ] My actions felt effortless.
- [ ] I knew what I needed to do.
- [ ] My inner critic was quiet.
- [ ] I made judgments about my actions or progress.
- [ ] I felt distracted.
- [ ] My thoughts wandered into past experiences or future concerns.
- [ ] Other: _____

Artistic Behaviors and Personal Growth

15. Select the behaviors that were present during this session.

Check all that apply.

- [ ] I felt my skills were improving.
- [ ] I improvised or acted spontaneously.
- [ ] It was easy for me to adapt to unplanned circumstances.
- [ ] I solved a problem.
- [ ] I stretched my imagination.
- [ ] I explored an emotion.
- [ ] I took a risk.
- [ ] I made a decision.
- [ ] I made a mistake.
- [ ] I failed at an attempt to accomplish something.
- [ ] I stopped to evaluate my work.
- [ ] I was worried about making mistakes. (Rheinberg et al., 2023)
- [ ] I was worried about failing. (Rheinberg et al., 2023)
- [ ] I doubted myself.
- [ ] Other: _____

16. Select the statements that were true for any part of this work session.

Check all that apply.

- [ ] I felt empowered.
- [ ] I felt confident.
- [ ] I felt a sense of personal purpose.
- [ ] My creativity brought personal meaning.
- [ ] I felt connected to my intuition.
- [ ] My inner wisdom was revealed to me.
- [ ] I gained new insights.
- [ ] I felt connected to something larger than myself.
- [ ] I experienced "internal monologues." (Eisner, 2002, p. 81).
- [ ] I learned about myself; my sense of self was expanded.
- [ ] Other: _____

17. At the end of this session, I felt:

Check all that apply.

- [ ] Happy
- [ ] Motivated
- [ ] Anticipatory
- [ ] Inspired
- [ ] Hopeful/Desiring
- [ ] Optimistic
- [ ] Worried
- [ ] Anxious/Nervous
- [ ] Energetic
- [ ] Lethargic
- [ ] Physical Discomfort
- [ ] Irritated
- [ ] Neutral
- [ ] Other: _____

18. In reflection, do you feel you reached a flow experience during this session?

Mark only one oval.

- ◯ Yes
- ◯ No
- ◯ Not Sure

19. What factors (activity parameters, environmental context, peer feedback, etc.) do you feel contributed most to the experience or absence of flow in this session?

_____

_____

_____

_____

_____

20. How might these reflections connect to your teaching practice?

_____

_____

_____

_____

_____

Appendix F

Mid-Point Critique

Peer Critique, Mid-Point (Art-Based Research)

Thank you for supporting my action research with your participation in this peer critique survey.

This mid-point critique centers on a developing series of artworks exploring the link between art activity variables and the creative flow state.

My action research question is: "How can an understanding of creative flow experience improve my teaching practice?"

1. What is your occupation?

Check all that apply.

- [ ] Art Teacher (K-12th)
- [ ] Early Childhood Teacher
- [ ] General Education Teacher (K-6th)
- [ ] Teacher of a subject other than Art (7th-12th)
- [ ] Other: _____

2. How many years of experience do you have in your occupation?

Mark only one oval.

- ◯ 0-5 years
- ◯ 5-10 years
- ◯ 10-15 years
- ◯ 15-20 years
- ◯ 20+ years

3. Are you familiar with Csikszentmihalyi's flow theory?

Mark only one oval.

- ◯ Yes!
- ◯ No.
- ◯ I'm not sure.

Flow Theory

Definition

Mihaly Csikszentmihalyi (1990), a pioneer in the field of positive psychology, defined "**flow**" as the experience of **heightened concentration** and **intense enjoyment** that can occur through **total immersion in an activity**. Often described as "being in the zone," the flow experience is associated with a **lack of self-consciousness** and a **distorted perception of time**.

Csikszentmihalyi, M. (1990). *Flow: The psychology of optimal experience.* Harper & Row.

4. Considering the above definition, how often do you experience flow?

Mark only one oval.

- ◯ Every day
- ◯ Multiple times a week
- ◯ Once a week
- ◯ 1-3 times a month
- ◯ Rarely
- ◯ I'm not sure.

5. Do you discuss creative flow (or the associated experience of heightened concentration and engagement in creative activity) with your students?

   Mark only one oval.

   - ◯ N/A - I do not work with students.
   - ◯ Yes!
   - ◯ No.
   - ◯ I'm not sure.

6. If you answered yes, please elaborate on the contents and results of your discussions with students.

   _____

11" x 14" - acrylic on canvas

7. Before reading the artist statement, what feelings or personal meanings, if any, do you derive from this artwork?

   _____

8. What assumptions, if any, do you have about the artist's experience of creating the above artwork?

   Mark only one oval.

   - ◯ The artist experienced occasional flow.
   - ◯ The artist experienced frequent flow.
   - ◯ The artist did not experience flow.
   - ◯ I'm not sure.

9. Please elaborate on any indicators in the artwork that guided your answer.

   _____

10" x 10" - acrylic on wood panel

10. Before reading the artist statement, what feelings or personal meanings, if any, do you derive from this artwork?

    _____

11. What assumptions, if any, do you have about the artist's experience of creating the above artwork?

Mark only one oval.

- ◯ The artist experienced occasional flow.
- ◯ The artist experienced frequent flow.
- ◯ The artist did not experience flow.
- ◯ I'm not sure.

12. Please elaborate on any indicators in the artwork that guided your answer.

Artist Statement

These in-progress artworks are the first two in a series of five paintings.

Cloudscapes as Psychological Metaphors

These paintings are inspired by Csikszentmihalyi's (1990) theory of flow psychology, its relevance to creativity, and the role of intuition and self-development in the artistic process.

The intention of this series is two-fold. First, I aim to examine the occurrence of flow experience in my creative process. Second, the work explores a variety of dynamic cloudscapes as visual metaphors for the mind.

In the artworks, the sun is a symbol for the intuitive Self: ever-present, whether hidden or emerging, illuminating colors and shapes across the sky. The clouds, shifting and elusive, are the ephemeral thoughts that steer attention and transform self-perception, for better or for worse. My hope is that the visual abstraction of these cloudscapes will lend itself to unexpected insights and personal connections, much like the experience of flow.

Artwork 1 is inspired by a warm, sunny sky– so bright that it glows even behind closed eyes. This piece is driven by awe, acceptance, and embracing what is out of my control.

Artwork 2 is inspired by the aftermath of a storm– the re-emerging sun temporarily hidden by a dark and stubborn cloud. This piece is a metaphor for examining unpleasant feelings and acknowledging that inner wisdom, however obscured, is still present.

13. After reading the artist statement, select any of the following statements that are true for you. You may make multiple selections.

Check all that apply.

- [ ] The artist statement enhances my viewing of the artwork.
- [ ] The artist statement complicates my viewing of the artwork.
- [ ] The artist statement makes me feel more connected to the artwork.
- [ ] The artist statement changes the personal meaning of the artwork for me.
- [ ] The artist statement has no effect on my viewing of the artwork.

14. In your opinion, how are these artworks successful?

15. In your opinion, how could could these artworks improve?

Appendix G

Final Critique

Peer Critique, Final (Art-Based Research)

Thank you for supporting my action research with your participation in this peer critique survey.

This final critique includes a series of artworks exploring the link between art activity variables and the creative flow state.

My action research question is: "How can an understanding of creative flow experience improve my teaching practice?"

1. What is your occupation?

Check all that apply.

- [ ] Art Teacher (K-8th)
- [ ] Art Teacher (9th-12th)
- [ ] Early Childhood Teacher
- [ ] General Education Teacher (K-6th)
- [ ] Teacher of a subject other than Art (7th-12th)
- [ ] Other: _____

2. How many years of experience do you have in your occupation?

Mark only one oval.

- ◯ 0-5 years
- ◯ 5-10 years
- ◯ 10-15 years
- ◯ 15-20 years
- ◯ 20+ years

3. Did you participate in the mid-point critique for this artwork series?

Mark only one oval.

- ◯ Yes. *Skip to question 8*
- ◯ No.

Flow Theory

4. Are you familiar with Csikszentmihalyi's flow theory?

Mark only one oval.

- ◯ Yes!
- ◯ No.
- ◯ I'm not sure.

Definition

Mihaly Csikszentmihalyi (1990), a pioneer in the field of positive psychology, defined "**flow**" as the experience of **heightened concentration** and **intense enjoyment** that can occur through **total immersion in an activity**. Often described as "being in the zone," the flow experience is associated with a **lack of self-consciousness** and a **distorted perception of time**.

Csikszentmihalyi, M. (1990). *Flow: The psychology of optimal experience.* Harper & Row.

5. Considering the above definition, how often do you experience flow?

Mark only one oval.

- ◯ Every day
- ◯ Multiple times a week
- ◯ Once a week
- ◯ 1-3 times a month
- ◯ Rarely
- ◯ I'm not sure.

6. Do you discuss creative flow (or the associated experience of heightened concentration and engagement in creative activity) with your students?

   Mark only one oval.

   - ◯ N/A - I do not work with students.
   - ◯ Yes!
   - ◯ No.
   - ◯ I'm not sure.

7. If you answered yes, please elaborate on the contents and results of your discussions with students.

Artwork 3

16" x 20" - acrylic on canvas

8. Before reading the artist statement, what feelings or personal meanings, if any, do you derive from this artwork?

Artwork 4

12" x 12" - acrylic on canvas

9. Before reading the artist statement, what feelings or personal meanings, if any, do you derive from this artwork?

Artwork 5

11" x 14" - acrylic on canvas

10. Before reading the artist statement, what feelings or personal meanings, if any, do you derive from this artwork?

Artwork Series

Cloudscapes as Psychological Metaphors

11. Viewing the series as a whole, which artwork do you think initiated the **most flow** for the artist?

Mark only one oval.

- ◯ Artwork 1
- ◯ Artwork 2
- ◯ Artwork 3
- ◯ Artwork 4
- ◯ Artwork 5

12. Viewing the series as a whole, which artwork do you think initiated the **least flow** for the artist?

Mark only one oval.

- ◯ Artwork 1
- ◯ Artwork 2
- ◯ Artwork 3
- ◯ Artwork 4
- ◯ Artwork 5

13. Please elaborate on any indicators in the artworks that guided your answers.

_____

Artist Statement

Cloudscapes as Psychological Metaphors

These paintings are inspired by Csikszentmihalyi's (1990) theory of flow psychology, its relevance to creativity, and the role of intuition and self-development in the artistic process.

The intention of this series is two-fold. First, I aim to examine the occurrence of flow experience in my creative process. Second, the work explores a variety of dynamic cloudscapes as visual metaphors for the mind.

In the artworks, the sun is a symbol for the intuitive Self: ever-present, whether hidden or emerging, illuminating colors and shapes across the sky. The clouds, shifting and elusive, are the ephemeral thoughts that steer attention and transform self-perception, for better or for worse. The visual abstraction of these cloudscapes lends itself to unexpected insights and personal connections, much like the experience of flow.

Artwork 1 is inspired by a warm, sunny sky– so bright that it glows even behind closed eyes. This piece is driven by awe, acceptance, and embracing what is out of my control.

Artwork 2 is inspired by the aftermath of a storm– the re-emerging sun temporarily hidden by a dark and stubborn cloud. This piece is a metaphor for examining unpleasant feelings and acknowledging that inner wisdom, however obscured, is still present.

Artwork 3 features a swelling thundercloud, dominating the frame of view, its power undeniable and merciless. This artwork is about courage, facing challenges head-on, and feeling the strength of the sun (the Self) at your back.

Artwork 4, improvised with no reference imagery, is inspired by the pursuit of self-improvement. A dark sky breaks open to expose an approaching glow, suggesting the capacity for healthier days ahead.

Artwork 5 is inspired by protection, guidance, and self-trust. The sun emerges to drench surrounding clouds in golden light, signifying the nurturing quality of intuition and positive self-talk.

14. After reading the artist statement, select any of the following statements that are true for you. You may make multiple selections.

Check all that apply.

- [ ] The artist statement enhances my viewing of the artwork.
- [ ] The artist statement complicates my viewing of the artwork.
- [ ] The artist statement makes me feel more connected to the artwork.
- [ ] The artist statement changes the personal meaning of the artwork for me.
- [ ] The artist statement has no effect on my viewing of the artwork.

15. Optional:
Please share any final thoughts, questions, or suggestions you have about the artwork series. Thank you!

Appendix H

Critique Participants' Perceptions of Artwork Meaning Prior to Viewing Artist Statement

Artwork 1 (Mid-Point)	Artwork 2 (Mid-Point)	Artwork 3 (Final)	Artwork 4 (Final)	Artwork 5 (Final)
The work looks calm and peaceful yet right on the brink of awe and inspiration. This artwork radiates optimism and hope, capturing the promise of a brand-new day. This artwork makes me feel a sense of calm and peace. The painting reminds me of my parents (who have passed) as the sunrise and sunset often do. Summer, Cotton Candy Skies, Sunrise/Sunset, Tranquility, and Rest. moody, soothing, nature, flow! serenity, peace, start of something. This is a calm mood. The person that made this likes the outdoors yet finds themselves looking through a window, or removed, perhaps in a dream-like state. The sense of newness and rebirth; the sun emerging from the clouds as a sense of hope.	Ominous. Anxious. Perseveration. This artwork seems to reflect the artist's overthinking, as it lacks the sense of freedom and spontaneity that comes with letting go. An ominous yet chill feeling comes to mind with the sky being lit up brightly while clouds take turns hiding the moon. Thunderstorm, Summer, Weary big sky, nature, soothing Sadness, reality, beauty. The cloud represents something dark and elusive. It is as if someone should be on the hill watching the cloud, but has disappeared. Turmoil before breakthrough This one does not bring the same joy as the last one. There is still a contentment, but it feels like it came with struggle. Wonder This artwork seemed stressed or anxious to me perhaps because of the unknown or confusion that this artwork creates. This one feels less fluid than the last. There is a dark cloud blocking the sun. The contrast feels a bit uncomfortable	Ominous Calm, beauty, Heaven, Storm brewing, fluffy The cloud seems large and dark and consuming--evoking sadness and nostalgia. The sun ray framing contrasts the cloud, maybe indicating that past/through a tough experience, there is light/happiness! I want to find images and figures in the cloud shapes. I see a person holding something with the head in the upper right side of the cloud form and an arm cradling something on the left side. The background invokes a hopeful or glorified feeling because of the contrast between warm and cool colors. It makes me think of light rays coming through dark clouds. peace and calm with a goodbye in there Being the in fog, blurred perspective, trying to see through the mist The beauty of clouds - noticing the details around you It makes me feel happy, almost like sunshine. It is calming but with excitement. calmness, rays of sunshine, relaxation, movement, blending	Chaos Peace, nature, Heaven, hope in a storm, eye's view of life, cool, wrapped in strength This looks like a negative from a film strip. It immediately made me think of Mt. Fuji! The vignette effect of the blurred strokes evokes a feeling of confusion or longing! I see an eye toward the center of the artwork. I also see a landscape and feel that there is an undertone of watchfulness or guidance. Something hopeful on the horizon. eye of a storm Getting through the dark storm to the light beyond Hazy memory of a landscape during the "golden hour" - maybe mountains? This reminds me of the water and wind blowing over the sea. I love the movement this artwork has. It flows like wind and water movement. dark, gloomy, landscape, streaky, whirlwind	Hope Golden light, God's light, trip to Heaven, warm love, peace This may be the second coming of Christ, for those who believe in that. Very angelic, Mt. Olympus from Disney's Hercules. Gilded clouds feel omniscient and intimidating. My immediate reaction is that this is heaven--gated and unattainable. This artwork makes me feel like there was a triumph over something. The warm colors contrasted with the cool background is visually striking. The ray of light emanating from the top right corner draws the eye through the piece and makes me lean in closer. Again hopefulness, light shining after a dark time. kitty not quite ready to leave earth Moment of inspiration, the light piercing through the cloudiness Looking at the quality of light coming through the clouds, noticing the everyday beauty around us Enlightenment and it reminds me of church paintings. like when they talk about a higher being or sense of purpose. heaven, cat, into the light, into the opening, lightness, airy, feeling of "everything is going to be okay"

Appendix I

Critique Participants' Narrative Descriptions: Discussing Creative Flow with Students

Mid-Point Critique	Final Critique
I teach elementary students so the conversation is a [bit] limited but we talk about spontaneous 'moments of focus' in the studio when it goes quiet and everyone is working. Students often ask why that happens soon after it occurs and we discuss [engagement] and creativity and focus. Yes, whenever I lose track of time during class and the bell rings before we've had a chance to clean up, I tell my students, "Time flies when you're having fun, right?" They always agree and often remark on how time seems to fly by in the art room compared to their other classes. When discussing flow, it is in a casual conversation about really getting into what we are doing where not much else matters and that flow in the art room is a great place to be. I like to talk about flow as the ultimate (attainable) goal in creating. I have them think of a time it has happened (sadly, many of them say while playing video games) and we talk about what a positive feeling it is. I like students to be aware of what "helps them find their flow" and even [though] we can't always create that in a classroom, they are aware of processes that help them tap into it. While I was not aware of the psychological research that was done on flow, I am highly aware of it in my own art practice. There is nothing better than entering a state of flow. Time stops, you have all the energy in the world, and you are communicating in such a pure way! I talk to my students about this all of the time, and try to help them find ways of learning to get to that on their own (which is REALLY HARD in an elementary classroom). I try to facilitate this with the use of headphones, or silent working time with lo-fi music and asking the kids to imagine they are grown up artists working in their own studio. While I think that few achieve flow in this setting, I think some can! Then getting them to leave the art room is a whole other can of worms! I discuss flow state most often with my high school drawing students. I show students a video by the Proko Youtube channel on automatic drawing. Students cite that they have experienced flow states through drawing or athletics. I talk about this all the time with my students. I try to begin each semester with mindfulness art activities and tips for inducing the flow state. This also helps students gain confidence in their artmaking with more emphasis on process over final product.	I talk to them about it as I have a lot of students with ADHD who are able to focus on an art activity for hours. I also talk to them about what I feel like when I am absorbed in a project and ask them if they [have] felt it. I'll talk to students about flow in passing, but I don't teach it explicitly. Mostly, this is an antidote to phone/chatty behaviors that distract from work time. We often talk about being in the "art zone" or totally honed into what we are creating. Students often complain about how quickly the class periods pass and we chalk that up to being in a flow. I talk to my students about being in the creative zone which is when time stands still. We talk about how to identify it and that it isn't always easy to get there but when you are there you don't want to leave. Some students understood and some not quite there. I introduce the theory in a simplified way with my advanced art students. I ask them to notice when they have been in a creative flow state and what they noticed. I use it as a way to remind them that 1) cell phones can break creative flow and 2) artists/creatives need that creative flow to tap into their creativity & imagination