

Framing Flowers: An experiment

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Abstract

Tourism is often dominated by visual engagement, yet little is known about how different types of visually engaging activities—mindful observation, photography, and drawing—impact tourists’ emotional and psychological outcomes. This mixed-method experiment investigated how these activities influenced garden visitors’ emotions, life satisfaction, and self-efficacy across three Dutch garden sites (N = 67). Participants were randomly assigned to one of the three activities and completed pre- and post-activity questionnaires, with a subset participating in filmed interviews. Quantitative results showed that all three activities significantly increased positive emotions, while observation and drawing also increased negative emotions, interpreted as emotional intensification. Life satisfaction remained stable, while self-efficacy increased significantly for photography and drawing, with drawing yielding the largest gain despite initially low confidence. Experience evaluations were uniformly positive, regardless of activity type. Qualitative findings highlighted enhanced sensory awareness and emotional reflection, with drawing participants reporting the strongest personal transformation. The study integrates theories of the tourist gaze, mindfulness, creativity, and self-efficacy, and suggests that visually engaging activities can foster meaningful, emotionally rich tourism experiences. These findings support incorporating creative and mindful practices into tourism design to enhance well-being and engagement. Future research should explore diverse settings, long-term effects, and multimodal creative interventions.

Introduction

Tourism has long been understood as a visually driven practice. The term “sightseeing” itself reflects the central role of vision in how tourists engage with their surroundings (Adler, 1989). From admiring views to taking photographs, tourists rely heavily on visual stimuli to shape their experiences (Urry & Larsen, 2011; Scarles, 2014). The visual appeal of destinations strongly influences tourists’ evaluations, return intentions, and willingness to recommend a site to others (Baloglu et al., 2004; Pizam, Neumann & Reichel, 1978).

While the current tourism experience is saturated with visuality, this was not always the case. In the era of the Grand Tour (17th–18th centuries), the focus of travel was scientific exploration rather than visual consumption (Löfgren, 1999). Over time, however, the pursuit of the picturesque and the sublime took center stage, aided by the rise of photography. These historical shifts marked the emergence of a visually dominant form of tourism, culminating in today’s ubiquitous photo-taking practices enabled by smartphones (Urry & Larsen, 2011).

Despite this visual emphasis, little research has explored how different *types* of visual engagement—specifically, mindful observation, photography, and drawing—impact the tourist experience. This study seeks to address that gap by comparing the effects of these three activities on emotional outcomes. It also investigates how a tourist’s self-efficacy—defined as their belief in their ability to succeed at a task (Bandura & Watts, 1996)—influences and is influenced by the activity. These insights aim to support more intentional inclusion of creative and mindful components in tourism offerings.

The Tourist Gaze and Multisensory Experience

Urry’s (1990) seminal theory of the “tourist gaze” posits that tourists observe the world through socially constructed lenses, shaped by societal norms, past experiences, and personal expectations. This gaze is not passive; it involves active meaning-making. Tourists frequently seek to “capture” their gaze through photography, a practice that both reflects and reinforces their experiences (Urry & Larsen, 2011). Urry’s main contribution was that the experience of tourism was overwhelmingly visual in nature. However, scholars have critiqued the visual emphasis of Urry’s framework for neglecting other senses. Tourists do more than see: they hear, smell, touch, and interact with their environments (Scarles, 2014; Kim & Fesenmaier, 2015). After these criticisms were made, rather few scholars investigated the effects of different visually engaging *activities* facilitated by tourism providers.

Visually Engaging Activities

This study categorizes mindful observation, photography, and drawing as “visually engaging” activities, though all three also engage other senses and cognitive processes. These activities differ in terms of accessibility and the degree of creative involvement required. Mindful observation is the most accessible, requiring no materials. It emphasizes present-moment awareness through the visual sense (Kaya et al., 2024) and is associated with both emotional regulation (Coffey et al., 2010) and increased emotion differentiation (Hill & Updegraff, 2012). However, it lacks a creative output.

Photography is slightly less accessible—requiring a device—but remains highly practical due to widespread smartphone use. It involves a degree of creativity, albeit less

cognitively demanding than drawing. Photos are seen as both documentation and aesthetic interpretation, enhancing memory and emotional connection to places (Sontag, 1979; Haldrup & Larsen, 2003). Tourists who take more photos and share more photos are relatively happier, according to cross-sectional studies (Gillet, Schmitz, & Mitas, 2016; Konijn, Sluimer, & Mitas, 2016)

Drawing, while the least accessible due to the need for supplies, demands the highest creative input. Unlike photography, which captures existing elements, drawing requires internal generation and imagination (Maynard, 2000; Maynard, 2005). It is also linked to therapeutic benefits and enhanced well-being (Csikszentmihalyi, 1997; Jensen & Bonde, 2018).

Visitor Experience

Numerous tourism, leisure, and hospitality scholars have positioned experiences as the central unit of value in tourism. Zajchowski, Schwab, and Dustin (2017) explained that experiences can be understood both as something lived in the moment, and something that is later recalled. Bastiaansen et al. (2019) and Duerden et al. (2018) convincingly argue that *emotions* are the key linking pin that turns (some) lived experiences into remembered experiences.

Measuring visitor experience remains complex. Bastiaansen et al. (2019) demonstrated that emotions are central to experience management and measurement. For this research, the experience is operationalized through changes in emotions (positive and negative). Life satisfaction, perceived impact, and evaluation of the experience are seen as outcomes of experiences which unfold in the moments afterwards.

Self-Efficacy and Creativity

Self-efficacy is a key variable moderating the visitor experience. People with higher self-efficacy tend to engage more positively with creative tasks (Pretz & Nelson, 2017). When tourists believe in their ability to take photos or draw, they enjoy the activity more (Collins & Amabile, 1999); low self-efficacy can lead to procrastination and disengagement (Wolters, 2004). Importantly, engaging in creative tasks can itself improve self-efficacy and self-esteem (Matarasso et al., 1997), suggesting a potential feedback loop.

Garden Tourism Context

The study takes place in garden settings—defined by Fox (2007) as environments centered on planted spaces. These spaces combine natural and cultural elements and have historically been the subjects of both art and tourism (Hunt, 2000; Urry, 1990). Gardens are associated with emotional and spiritual well-being (Connell, 2004), and while most visitors engage passively, some actively take photographs or even draw (Connell, 2004).

Research Questions and Framework

The study addresses three main questions: (1) How do visually engaging activities influence visitor experience? (2) How do the three activities differ in their effects? (3) Does self-efficacy moderate these effects? A conceptual framework links activity type with visitor

experience components and outcomes (emotions, life satisfaction, experience impact, and evaluation), with self-efficacy as a moderator.

Methods

The study employed a mixed-method experimental design to examine how three types of visually engaging activities—mindful observation, photography, and drawing—affect garden visitors' emotions, outcomes, and self-efficacy.

Study Design

Participants were assigned to one of three conditions: mindful observation ($n = 21$), photography ($n = 24$), or drawing ($n = 22$). Each participant visited one of three Dutch gardens—Hortus Bulborum, Belmonte Arboretum, or De Hertgang in April and May 2025. Activities lasted 20–30 minutes. All participants received written and verbal instructions specific to their assigned activity. After completing their activity, participants answered a post-activity questionnaire and optionally participated in a filmed interview.

Quantitative Measures

The study used pre- and post-activity self-report questionnaires to measure the following emotions using the modified Scale of Positive and Negative Experience (Diener et al., 2009), Life Satisfaction using the Satisfaction With Life Scale (Diener et al., 1985), two standardized experience outcome measures by Strijbosch et al. (2021), and the General Self-Efficacy Scale (Schwarzer & Jerusalem, 1995). Participants completed the pre-test immediately before and the post-test immediately after their assigned activity. The experience outcome measures were only found on the post-activity questionnaire.

Qualitative Measures

Qualitative data were collected using an ethnographic documentary approach. Data consisted of field observations, open-ended survey responses, and 11 filmed interviews. The interviews were conducted within a documentary project framework and asked participants to describe their experiences, challenges, and emotional responses to the activity. Additionally, two participants were asked to engage in all three activities for the documentary. They were also interviewed and observed for this study.

Findings

Quantitative Results

Across all three conditions, participants showed statistically significant increases in positive emotions from pre- to post-test, from the largest for mindful observation: $t(20) = -3.870$, $p = .001$, to drawing: $t(21) = -3.074$, $p = .006$, to photography: $t(23) = -2.901$, $p = .001$. Interestingly, negative affect also increased significantly in two of the three groups, namely mindful observation: $t(20) = -2.104$, $p = .048$ and drawing $t(21) = -2.476$, $p = .022$. These increases in negative affect were unexpected but interpreted as a sign of emotional intensification rather than distress. The act of focusing deeply on visual stimuli may have made participants more emotionally receptive, including to subtle negative feelings. None of

the activities led to statistically significant changes in life satisfaction, consistent with literature noting that life satisfaction is relatively stable over short time intervals.

Self-efficacy increased significantly in the photography group, $t(23) = -3.984$, $p = .001$; and in the drawing group $t(21) = -3.594$, $p = .002$. The drawing group, despite having the lowest pre-test self-efficacy ($M = 5.27$), showed the highest gain ($M = 6.50$), suggesting that confronting and overcoming initial anxieties related to drawing may have provided a sense of accomplishment.

ANOVAs implemented using dummy coded variables in a linear regression framework revealed no significant differences between the three activities in terms of post-activity experience evaluation. On average, participants evaluated their experiences positively ($M = 8.35$, $SD = 1.20$ on a 0-to-10-point grading scale), regardless of the activity type. ANOVA comparisons between mindful observation and either drawing or photographing respectively showed no between-group differences in change scores, with all $ps > .05$. The difference between drawing and mindful observation groups in life satisfaction change was marginally significant, with the drawing condition being slightly more positive for life satisfaction change ($t = 1.774$, $p = .08$). Moderation analyses explored whether baseline self-efficacy influenced the effect of the activity on outcomes. No moderation effects were found.

Qualitative Findings

Participants emphasized the positive outcomes of their visit and of each specific activity to which they were assigned. While this sentiment was universal, subtle differences between activities also emerged. Participants across all conditions described becoming more attuned to their surroundings, to their benefit:

“I really enjoyed it. I just felt like the colours were more vibrant when I was being mindful.” (Observation participant)

“But the fun thing is that through the camera lens, you look at things differently. You notice how the sun shines on a flower, you look at the details.” (Photography participant)

“I really enjoyed that, because you start looking at flowers in a totally different way. So yeah, I really enjoyed that.” (Drawing participant)

The drawing group showed the most pronounced narratives of change in self-perception. Many initially expressed fear or doubt:

“Yeah, considering I have zero talent, I don’t think. Stick figures are my friend.” (Drawing participant)

However, nearly all interviewees who expressed this doubt also reported surprise and satisfaction afterward:

“It is making me really happy, despite the fact I was bad at drawing. How amazing is that, right?” (Drawing participant)

This theme of letting go resonated with increased self-efficacy in the quantitative findings and suggests a psychological shift enabled by non-judgmental creative engagement.

Conclusion of Findings

Quantitative and qualitative data converge to suggest that visually engaging activities increase emotional intensity, particularly positive emotions. Drawing and photography, in particular, also contribute to gains in creative confidence and self-efficacy. While life satisfaction remained stable, the activities were evaluated positively across the board. The qualitative data added nuance, capturing the compelling and reflective nature of the experiences.

Discussion and Conclusions

This study investigated how visually engaging activities—mindful observation, photography, and drawing—influence visitor experience, emotional well-being, and self-efficacy in garden tourism settings. The findings contribute theoretically to tourism and leisure studies by integrating frameworks from mindfulness (Kabat-Zinn, 2003), creative engagement (Csikszentmihalyi, 1997), and Bandura’s theory of self-efficacy (Bandura, 1997).

Emotional Outcomes and Intensification

All three activities significantly increased positive emotions, confirming previous literature on the mood-enhancing benefits of mindfulness (Brown & Ryan, 2003), photography (Sontag, 1979), and creative expression (Jensen & Bonde, 2018). However, contrary to expectations, negative emotions also increased for participants in the observation and drawing groups. This finding diverges from studies suggesting mindfulness reduces negative affect (Mitas, de Graaf, & Bastiaansen, 2021), but aligns with research on emotion differentiation (Hill & Updegraff, 2012), indicating that mindful, focused engagement may heighten both positive and negative emotions through deeper sensory awareness. Participants did not appear distressed; qualitative data revealed they found the activities enjoyable, reflective, and emotionally resonant. This supports the interpretation that emotional *intensification*—rather than deterioration—characterized their responses.

Life Satisfaction and Stability

As expected, no dramatic changes in life satisfaction were observed, consistent with the literature positioning life satisfaction as a stable trait (Pavot & Diener, 1993). A minor trend suggested that photography may have slightly improved life satisfaction, but the effect was small. This reinforces the idea that while activities may influence short-term mood, they are less likely to shift global life evaluations in brief interventions.

Experience Evaluation and Creativity

Experience ratings were uniformly high across activities, suggesting strong appreciation regardless of task type. Regression models found no significant predictors of experience evaluation, rejecting hypotheses that more overtly creative activities (e.g., drawing) would lead to deeper reflection or satisfaction. These findings challenge assumptions that creative output automatically enhances experience quality and underscore the importance of individual differences.

Self-Efficacy: Growth Through Creative Challenge

Notably, self-efficacy increased significantly in the photography and drawing groups but not in the observation group. Drawing participants—who began with the lowest self-efficacy—reported the largest gains, echoing Bandura’s (1997) concept that mastery experiences can strengthen perceived competence, particularly when expectations are initially low. Interview data confirmed that drawing evoked anxiety due to participants’ perceived lack of skill. Yet, through the activity, many reframed their focus from technical ability to personal enjoyment and attention to detail. This shift—from fear of failure to valuing the process—was central to self-efficacy growth. The results support Collins & Amabile’s (1999) finding that creative engagement can enhance confidence when the experience emphasizes process over product.

Subjective Variability and Personal Meaning

Reflections from participants who completed all three activities revealed personal variability in engagement. While observation grounded them, photography elicited mixed reactions—from joy to frustration—depending on expectations and distractions. Drawing, despite initial hesitance, was described as deeply enjoyable in the end. These findings echo the notion that creative and mindful practices are highly personal, and their impact cannot be easily generalized.

Implications for Tourism and Leisure Design

The results advocate for integrating mindful and creative elements into visitor experiences. Tourism providers should offer accessible drawing or photography materials and design experiences that encourage present-moment awareness without pressuring performance. Framing creative tasks as exploratory rather than evaluative can reduce barriers to participation and support emotional and psychological benefits. Rather than worrying which of these activities is ‘best,’ providers should align the choice with their brand values or mission.

Conclusion and Future Directions

This study supports the view that visually engaging activities enhance emotional intensity and creative confidence during leisure experiences. While short-term interventions do not affect stable constructs like life satisfaction, they can foster meaningful, momentary experiences. These changes—when repeated—may gradually influence broader well-being. Future research should explore additional creative activities (e.g., writing, filmmaking), extend to diverse environments beyond gardens, and investigate long-term effects. Further, scholars are encouraged to adopt creative methodologies, including visual storytelling, to enrich both understanding and dissemination.

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