

Elizabethtown College

JayScholar

---

Psychology: Student Scholarship & Creative Works

Psychology

---

Spring 2022

## Art Experience, Art Enjoyment, and Fixed/Growth Mindset: Clues in the Case for Art Therapy

Hope McQuoid

Follow this and additional works at: <https://jayscholar.etown.edu/psycstu>



Part of the Psychology Commons

---

## Honors Senior Thesis Release Agreement Form

The High Library supports the preservation and dissemination of all papers and projects completed as part of the requirements for the Elizabethtown College Honors Program (Honors Senior Thesis). Your signature on the following form confirms your authorship of this work and your permission for the High Library to make this work available. By agreeing to make it available, you are also agreeing to have this work included in the institutional repository, JayScholar. If you partnered with others in the creation of this work, your signature also confirms that you have obtained their permission to make this work available.

Should any concerns arise regarding making this work available, faculty advisors may contact the Director of the High Library to discuss the available options.

### Release Agreement

I, as the author of this work, do hereby grant to Elizabethtown College and the High Library a non-exclusive worldwide license to reproduce and distribute my project, in whole or in part, in all forms of media, including but not limited to electronic media, now or hereafter known, subject to the following terms and conditions:

### Copyright

No copyrights are transferred by this agreement, so I, as the author, retain all rights to the work, including but not limited to the right to use in future works (such as articles or books). With this submission, I represent that any third-party content included in the project has been used with permission from the copyright holder(s) or falls within fair use under United States copyright law (<http://www.copyright.gov/title17/92chap1.html#107>).

### Access and Use

The work will be preserved and made available for educational purposes only. Signing this document does not endorse or authorize the commercial use of the content. I do not, however, hold Elizabethtown College or the High Library responsible for third party use of this content.

### Term

This agreement will remain in effect unless permission is withdrawn by the author via written request to the High Library.

Signature: \_\_\_\_\_

*Hope M. Givard*

Date: \_\_\_\_\_

5/3/22

Art Experience, Art Enjoyment, and Fixed/Growth Mindset:  
Clues in the Case for Art Therapy

By

Hope McQuoid

[only if applicable such as with interdisciplinary theses]

This thesis is submitted in partial fulfillment of the requirements for Honors in the Discipline in  
Psychology Department

and the Elizabethtown College Honors Program

Due Date: 05/06/2022

Thesis Advisor (signature required) T. S. Smith  
Second Reader M. My  
Third Reader (if applicable) Eugene  
[only if applicable such as with interdisciplinary theses]

**Art Experience, Art Enjoyment, and Fixed/Growth Mindset:  
Clues in the Case for Art Therapy**

Hope McQuoid

Department of Psychology, Elizabethtown College

Honors in the Discipline

Dr. Evan Smith & Dr. Michael Roy

May 4<sup>th</sup>, 2022

**Abstract**

Existing research into the Creative Arts Therapies (or CAT), though still growing and not quite widely recognized across the field of Psychology, points toward the use of art related interventions to decrease stress levels and create a high sense of enjoyment, but little research has been done to examine the impact of particular components of said intervention. This includes how the role of the instructor of such an intervention would impact stress levels and enjoyment, if art experience of the participant has a role in the outcome of either variable, or if a particular mindset about creativity could impact one's willingness to engage with the arts overall. The current study consisted of two studies, each exploring these possibilities as a means of broadening the acceptance of CAT. The first examined the impacts of both a high stress instruction type and a low stress instruction type of art intervention carried out on two randomized groups. Results showed that instruction type did not influence either group of participants, but instead found that stress levels decreased significantly, and that reported enjoyment was high across groups. Regardless of instruction type or art experience, a simple art intervention can have a positive impact on mental health and well-being. The second study collected data regarding participants' opinions on and experience with the arts and compared with their mindset type regarding creativity: a fixed mindset or a growth mindset. Results found that those reporting a higher growth mindset type had more willingness to engage in the Creative Arts Therapies, along with higher enjoyment of the arts overall. This could indicate the need to work on increasing a growth mindset towards creativity and the arts to have more participants willing to engage in CAT. The findings of both studies call for more attention and validity to be given to the fields of CAT and for continued work at bringing art to more people both in the therapy setting and in their own free time.

### **Art Experience, Art Enjoyment, and Fixed/Growth Mindset:**

### **Clues in the Case for Art Therapy**

As the field of psychology has evolved, so has the understanding of the field of psychotherapy. Today one is much more likely to find therapies of different styles and approaches including music, art, and dance than the exclusively talk therapies of the past. One of these newer forms of therapy is the category of Creative Arts Therapies, commonly abbreviated to CAT. This treatment as a form of counseling and therapy has become more popular with time, emerging as an intervention different from typical conversation-based therapy types. CAT most commonly refers to art therapy, dance and movement therapy, and music therapy, but can extend into other artistic domains. With its increase in not only use but recognition in the mainstream, there has been an increase in empirical research investigating the benefits of CAT under different types of circumstances and within different populations. One meta-analysis looked at existing research of the effects of CAT on different types of severe mental illness (referred to as SMI, Chiang et al., 2019). Almost ninety studies were reviewed from a publishing period of ten years. It was found that in cases of SMI such as schizophrenia, bipolar disorder, and major depression, that Creative Arts Therapies overall are a low-risk intervention type with high benefits. The current research looked to evaluate if these benefits of art-based interventions can be seen regardless of a particular diagnosis. It also aimed to see if there are particular individuals who are more receptive to the Creative Arts Therapies as a whole than others.

In the case of research extending outside of SMI, more recent findings have found the same low-risk and high benefit outcomes. This includes extending Creative Arts Therapy research into different settings, along with more differences in mental health status among participants. The use of visual art interventions in general mental health services has related to higher participant satisfaction and a higher level of connectedness among other participants

(Cole et al., 2018). The population was young adults in different mental health programs, where a particular diagnosis was not related to the art intervention. This points to the use of CAT, particularly Art Therapy, as beneficial regardless of the type of mental health diagnosis they had. Additionally, art therapy along with dance and movement therapies have been found to decrease stress in populations where there may not be any mental health diagnosis (Zimmerman & Mangelsdorf, 2020). In a college setting where mental health services were offered to all students, students that participated in dance therapy and art therapy self-reported lower levels of stress. This relates to the concept of Creative Arts Therapies being low-risk and easy to complete, while still maintaining high levels of success (Chiang, Reid-Varley & Fan, 2019). Though CAT types are still being empirically studied, the literature points to their benefits and place as a valid type of treatment.

### ***Creative Arts Therapies and Stress***

One of the benefits of CAT is an overall stress reduction among those who use CAT as a form of treatment (Zimmerman & Mangelsdorf, 2020). Another study examined the college student population, as this is an age where high stress is reported (Beerse, Van, & Stanwood, 2020). This study examined the impact of different therapy tasks and hypothesized that a more reflective mindfulness task would see a larger decrease in reported stress. Over a five-week intervention the group reported lower levels of both stress and anxiety and was consistent across self-reported measures of stress and biological measures such as salivary cortisol levels. Though the study notes the need for more research into the use of biological measures for art related interventions, the evidence points to a mindfulness-based art therapy task acting as a mediator for decreasing stress and anxiety levels (Beerse, Van, & Stanwood, 2020). Other studies have examined the type of art interventions that can be the most reliable for decreasing stress upon

use. Though the majority of findings point toward most simple art tasks being able to lower stress levels, it is when creating art related to personal positive experiences that stress seems to decrease more in a non-therapeutic setting (Curl, 2008). This is defined as a client focusing on a positive event or experience while creating a work that is in direct relation to said event. This is hypothesized to be related to the idea of a creative high, or where the creator is enjoying the subject matter and creative process of their work and therefore the experience lower stress levels and increases positive emotions. However, the study also examined stress levels when creating works representing negative or stressful situations, and a slight decrease in stress was found here as well. This finding points more towards the therapeutic and coping side of art interventions where patients may choose to create a work related to a more negative experience to aid in their coping process. Either situation, though slightly different in this study's finding of stress levels, seems to be able to aid in lowering stress among participants.

Many art interventions and/or CAT on can decrease stress levels in the short term, but there are also findings to support their effects across a longer timeframe. A five-year study found that both self-reported and clinical-rated symptoms related to anxiety and stress decreased in those who participated in art therapy-based interventions (Caddy, Crawford & Page, 2012). The sample was about 400 individuals in a mental health care facility and tracked them from their intake to discharge. Their diagnoses and reasons for being in the center differed and showed that CAT interventions are successful across different mental health diagnoses (Cole et al., 2018). As one of the only longitudinal studies to examine lasting impacts of art interventions, these findings point to a real benefit for these types of interventions over longer periods of time. Overall, the literature regarding Creative Arts Therapies and particularly their impacts on stress levels is still growing and building and needs more research conducted. From what is currently



available, most findings support the positives of CAT as a whole and its impacts on lowering stress levels.

A goal of the current research study was to explore how the Creative Arts Therapies could become a more viable and useful intervention type to prospective participants or clients. There exists a type of misconception around the visual art domain that it is only for those who have a particularly strong interest or ability in said domain, but evidence shows that CAT can be helpful to participants regardless of art experience or ability. This study hoped to understand exactly what types of instruction can lead to the most effective form of art intervention, and what types of participants are the most open to an art intervention overall.

In the field of Art Therapy, there is a value for and emphasis on pushing both openness and creativity in a session, allowing for the client to feel comfortable and free of judgment (Hinz, 2017). Additionally, the promotion of creativity is said to be crucial for expression and for a deeper level of self-understanding. Creativity is considered to be one of the major pillars of the field, cited as one of the core values in the ethical code for Art Therapists, though the process of making sure it is emphasized equally in all art therapy settings is ambiguous (Hinz, 2017). How can one make sure this is achieved in all types of interventions involving art? If this is not achieved, it could lead to the further alienation of the therapy type instead of moving more into the mainstream despite its proven strengths and benefits. To fully investigate and understand this question, one needs to examine existing research on instruction type and its impact on performance.

### ***Performance Under Pressure***

There are individuals who may find the creative arts (and therefore Creative Arts Therapies) to be a source of stress, or a type of activity that puts a lot of pressure on them. It is

important then in the expansion of CAT to understand how exactly pressure can impact a person's enjoyment or success in a particular intervention. This is in order to continue the investigation of how to expand the acceptance and use of CAT. Pressure as a phenomenon is defined in psychological literature as a sensation felt in a situation where something at stake is dependent on the behavior of the individual (Muran & Eubanks, 2020). When experienced in a specific situation, it is found to have an impact on judgment and appraisal of said situation, along with impacting working memory and attention span. Pressure is often discussed along with stress, which is defined as a "mix of perceived demand and perceived ability to cope through the demand" (Muran & Eubanks, 2020). Stress levels also positively relate to feelings of pressure, with stress impacting the thinking process and leading to heightened feelings of pressure. The literature also notes the difficulty of pinpointing definitions for both stress and pressure, as they are experienced differently by different people. However, their existence in situations where something is being asked of an individual comes up frequently in psychological research. One of these phenomena is 'choking' under pressure or performing poorly on a task due to perceived pressure. This concept is well-studied and seems to occur in varying tasks and across domains (Merced, 2019). This explains the phenomenon as due to how one manages anxiety in high pressure situations. For many individuals, attention levels can shift during these moments, and instead of attention being used to focus on the task, attention will move to worrying about one's performance or to replaying self-doubt phrases in one's consciousness. This signifies that there is a recognized phenomenon in response to high pressure situations, where the participant is sometimes unable to complete the task, they set out to do. It is still unclear if this experience in a high-pressure situation can occur during sessions of CAT, leading to nullifying the distressing effects of the therapy. If the art therapy intervention is framed as high pressure and high stakes,

there is then a chance that the choking sensation can happen to the patients, leaving them unable to get the destressing benefits found from completing the intervention.

Research has also been done to see if there are certain modifiers that can make high pressure situations less stressful. Earlier literature examined the impact of success expectancy on pressure (Crisson, Seta, & Seta, 1995). In the study, high task-value and low task-value were outlined to mean types of tasks with higher or lower stakes. The researchers examined whether a high task-value situation would be impacted by a person's high or low expectation of success. A direct correlation was found, with the participants that reported low expectancy for success performing better on a low-task value intervention. This means that high task value situations are more suitable for those with a high expectation of success. Regarding an art task, this would suggest that only those who already have a high expectation of art-related success could operate successfully under a high-stake instruction type and isolate those who may not have as much confidence in art skills.

A more recent study builds on these findings, noting that self-confidence levels drop more in high task value situations (Lo & Abbott, 2019). When faced with a task of high value, any reported levels of self-confidence (whether starting as high or low) are found to drop more than they would upon facing a task with lower value and stakes. Additionally, when a high value task situation is faced repeatedly, it causes self confidence levels to drop even faster, suggesting that the repetition of a situation like this can lead to larger decreases in self-confidence levels. In this case, even those individuals with higher confidence for an art-based intervention task would experience a decrease under higher pressure. This suggests that high task value situations should be avoided during instruction, particularly about art interventions designed to decrease stress, to prompt higher confidence levels and less stress response concerns.

There are other reported benefits of avoiding more demanding or negative instruction types. This includes lower levels of stress among students who report positive interactions and connection with their instructor (Banks & Smyth, 2015). This study, though conducted in an academic school setting, can be examined through the broader lens of instructor and student rather than just specifically a teacher. An additional finding in this study that could be extended to the instruction of art interventions is that students reported lower stress levels when presented with more opportunities to pick the things they engaged with. This points to the importance of allowing creativity and freedom in an instructional setting. As stated previously, creativity is noted to be a pillar of art therapy (Hinz, 2017). With this open-endedness and control being in the hands of the participant found to decrease stress, it points even more to the need for such instruction types.

However, not all research into instruction types and performance under pressure has the same takeaway. One study examined whether a stressful versus reassuring instruction type would have an effect on the participants' anxiety levels and overall performance on different tasks (Meijer & Oostdam, 2007). However, the researchers found that instruction type did not have a significant impact on stress levels or performance, regardless of the type of task it was. This result stands apart from the other findings suggesting the importance of instruction type but is important to mention as an alternate finding. With all the research considered, there is clear evidence that instruction type, particularly a high value type versus a low value type, can have an effect on both the pressure of the situation and the stress levels of the participant. Additionally, it is found that high value task situations have a negative effect on self-esteem, anxiety, and stress levels, while low value task situations have a positive effect (Lo & Abbott, 2019). This type of value is assigned to a situation based on how the task is presented, particularly in its instruction

type. Overall, the presentation of instructions of a given task will have an impact on the participants response to and opinion of said task.

### ***Fixed Mindset and Growth Mindset***

As the study has the overall goal of finding a way or ways to bring the Creative Arts Therapies to a wider group of people, the second part of the study examined if certain perspectives on the Visual Arts could indicate more openness to Art Therapy as a whole. Fixed mindset is the belief that particular attributes of a person are static and cannot be changed or improved upon (Popova, 2014). On the other hand, a growth mindset is the belief that these components can be developed and improved upon through trial and error. These two different mindsets can represent a person's openness to engaging in particular activities that they believe themselves to be less successful with, and their likelihood to enjoy the activity. As both growth and fixed mindset can be applied to many different components of a person's abilities, it is possible to examine them regarding creativity.

There are not many studies that have examined mindset type in connection to creativity, and even fewer about how this mindset could impact one's openness to the visual arts as a whole. However, a few studies do exist. A very relevant group of studies designed and used a Creative Mindset Scale to evaluate whether a person has a fixed or growth mindset in connection to creativity (Karwowski, 2014). The mindsets were found to be independent from one another, rather than two ends of a spectrum. There is also the concept that a mindset one way or the other in regard to creativity is rooted within the individual and may not be easily changed once the mindset type is established. In addition, it was found that a growth creativity mindset was positively correlated with creative problem solving, while a fixed mindset was negatively correlated with completing insight problems. Though not specifically about the visual arts, these

findings in regard to mindset type can be extended into how able a person is to engage successfully with the visual arts as a whole.

When examining how people understand creative ability, both a fixed mindset and a growth mindset are considered. Creativity is not seen as a completely fixed trait or a completely growable trait and has led to different understandings of creative ability (Karwowski et. al., 2019). This variability in how creativity is understood continues to point to differences across individuals and how some are more willing to give the arts a chance than others due to a belief that one's creative abilities can be improved. These differences have also been found to be independent of one another, rather than two ends of a spectrum. Instead, a growth mindset and a fixed mindset towards creativity remain more stagnant. To increase openness to art therapy interventions, perhaps the relationship between these two types of mindsets and an openness to CAT should be further examined.

Other studies have investigated how those with a fixed or growth mindset towards creativity are perceived by others. Those who are seen as creative by their peers are more likely to have a growth mindset in regard to creativity (Li et. al., 2020). This points to the idea that those with a growth mindset may be more willing to continue to engage with the arts, making them seem more creative and related to the arts in the eyes of their peers. Again, those with a growth mindset seem to be the most willing to engage in the arts. Finally, research examining correlations between growth and fixed mindsets towards creativity and other factors found that those who report a fixed mindset for creativity have lowered performance in creative problem-solving tasks (Hass et. al., 2019). Though not directly related to engagement and performance in visual art activities, the visual arts do contain components of problem solving and a correlation can be drawn between the two types of interventions. Overall, though the existing research

comes from a small pool, the research points towards the implications of a growth mindset for creativity and how it can impact one's ability to engage in the visual arts and other creative activities.

### ***Hypotheses***

The investigated literature covered the ability of Creative Art Therapies to reduce stress levels across populations, the impact of instruction types of a task on the stress levels of the participant, and the differences in mindset type and how it impacts openness to new activities. In order to aid in the spread of CAT as a treatment option for more people, it is crucial to make it as open as possible to avoid the continuation of concerns that only those who are confident in their art abilities or have a particular affinity to the arts can benefit from CAT interventions. Instead, there must be more research into the characteristics of CAT interventions and perspectives of people that may relate to openness to CAT therapy.

The first study examined the effect of instruction type for a visual art related task on the stress levels of participants. Participants who experienced a more demanding instruction type were hypothesized to have higher levels of stress following an art task than those that experienced an open-ended instruction prior to an art task. Additionally, prior art experience was included to explore whether art experience was related to the variable of stress.

The second study examined how growth mindset and fixed mindset towards creativity related with openness to Creative Arts Therapy. Participants with greater growth mindset for creativity were expected to report higher enjoyment of the arts and more openness to an art therapy intervention as a whole. Art experience and art enjoyment were again included as exploratory variables.

### **Method**

## **Study 1**

### ***Participants***

The participants in this study consisted of a sample of 45 college aged students from a small liberal arts college in Central Pennsylvania. This study was a between subject design and the participants were randomly assigned to one of two groups: a high task expectancy group and a low task expectancy. Participants were not aware of which group they were in until the end of the experiment. Participants were expected to have varying levels of art experience and differing opinions on the arts.

### ***Materials***

Self-report scales and questionnaires gathered information pre and post-test. A five-point Likert-type questionnaire to evaluate art experience and opinion was administered before the intervention, with questions such as “I engage with the arts on a regular basis” and “I enjoy visual art activities.” The Perceived Stress Scale, previously found to be high in validity and reliability in its ten-question form, was used to assess initial stress levels in participants (Cohen et. al, 1994). The State Trait Anxiety Inventory (was utilized to evaluate baseline levels of stress in the participants before beginning. This inventory is high in both validity and reliability and has been used many times over multiple decades (Spielberger et al, 1971). The inventory was also used post-test to compare any changes in stress levels. Finally, another five-point Likert-type questionnaire designed by the researcher was administered post-test to examine levels of satisfaction and opinions on the art intervention. This included questions such as “The art task was relaxing”, and “I felt confident in my ability to complete the art task”.

### ***Procedure***



The experiment had two possible conditions. Both groups of participants were instructed to complete a simple art task: drawing a picture of a happy moment in their life. The instruction type given by the researcher differed for each group, with the Process group having received open ended, focused, and supportive instruction type, and the Outcome group having received outcome focused and judgmental instruction type. This differed not only by the types of phrases used in the instructions, such as “your goal is to create a picture depicting a happy memory” vs “you must create a picture successfully depicting a happy memory”, but also emphasis on time constraint or lack thereof, and either more or less one on one interaction to create a comfortable or uncomfortable environment. The stress levels of both groups were monitored by the different surveys implemented pre- and post-tests.

## **Study 2**

### ***Participants***

The participants in this online study consisted of a sample of 51 college aged students currently studying at the undergraduate level. These students were recruited electronically and varied in their school of study. Some students were recruited via an Introduction to Psychology course as a way to obtain extra credit for their class. There was a more diverse mix of participants in Study Two than in Study One, particularly among gender identity. Participants were once again expected to have varying levels of art experience and differing opinions on the arts.

### ***Materials***

The survey included 4 questionnaire measures. The first section was the Art Experience Questionnaire, which originated in Study One. This questionnaire consisted of questions about the participants day to day involvement with the arts. The researcher then edited this survey to include more questions related to the use of visual arts to feel better when one is down, to collect

more information closely tied to the themes of Art Therapy. The second questionnaire was Opinions on Visual Art Activities, which also originated in Study One. However, the questionnaire was edited this time to reflect general opinions on visual art activities or interventions, rather than in response to an intervention led by the researcher. The third questionnaire was the Creative Mindset Scale (Karwowski, 2014). This scale was designed to measure one's mindset type (degree of fixed mindset in relation to their degree of growth mindset) regarding creativity as a concept. This scale tied directly to what the current research hoped to investigate and was used as such. Finally, the final section asked three questions that directly related to CAT: if they had engaged in a session before, if they would be willing to in the future, and if they believed CAT to be a beneficial treatment type.

### ***Procedure***

The participants completed a survey consisting of 4 sections of questionnaires and a demographics section. The survey was available online via Microsoft Forms and was shared by word of mouth and via the internet. The survey process took between 5-6 minutes on average to complete.

## **Results**

### ***Study 1***

The researcher predicted that between the two groups of participants of an art activity, the members of the high demand group ( $n = 22$ ) would experience higher levels of stress than the low demand group ( $n = 23$ ). An Independent sample t-test examined the reported art experience variables and found that there were no significant differences in art experience between the groups, suggesting that any variation between groups could not be explained by the art experience variables ( $ps \geq .080$ ).

A mixed model ANOVA evaluated the relationship between group condition and stress levels. A Between Subjects Effect found that condition type was not significant,  $F(1, 43) = .43, p = .517, \eta^2 = .01$ . A Within Subjects Design found that there was no significant relationship between stress levels and condition type,  $F(1, 43) = .13, p = .724, \eta^2 = 0$ . A Within Subjects Design found that there was a significant difference of stress levels pre art intervention ( $M = 41.80, SE = 1.74$ ), and post art intervention ( $M = 32.20, SE = 1.16$ ) regardless of condition type,  $F(1, 43) = 68.60, p \leq .001, \eta^2 = 0.19$ . Another Independent sample t-test found that opinions and enjoyment of the activity upon completion were not significantly different by group ( $ps \geq 0.10$ ). The only significant difference across groups and conditions was a reduction in stress levels after completing the art activity.

To further examine enjoyment, a one sample t-test was performed comparing the data set to the value of 3, which was the midpoint on the enjoyment scale of the post activity survey. All 7 categories were rated significantly above the midpoint, and each category of the scale leaned towards the positive end of the scale. These categories were finding the task enjoyable ( $M = 4.64, SD = .53, t(44) = 20.85, p < .001, d = 3.11$ ), finding the task relaxing ( $M = 4.42, SD = .75, t(44) = 12.66, p < .001, d = 1.89$ ), feeling confident in their ability to complete the task ( $M = 3.84, SD = 1.1, t(44) = 5.12, p < .001, d = 0.76$ ), feeling that they had enough time to complete the task ( $M = 4.47, SD = .97, t(44) = 10.17, p < .001, d = 1.52$ ), being satisfied with their finished art piece ( $M = 3.84, SD = 1.02, t(44) = 5.55, p < .001, d = 0.83$ ), thinking the task would be enjoyable for any hypothetical participant ( $M = 4.44, SD = .76, t(44) = 12.83, p < .001, d = 1.91$ ), and reporting that they would engage in a similar art activity again ( $M = 4.31, SD = .90, t(44) = 9.77, p < .001, d = 1.46$ ). Finally, a correlation matrix was run to evaluate the possibility of art experience accounting for change in stress levels but found no significant relationships between any of the experience variables and change in stress ( $ps \geq .214$ ).

## **Study 2**

The researcher hypothesized that art experience and more positive opinions on the visual arts would be significantly correlated with growth creative mindset and the inverse would be correlated with fixed creative mindset. The sample ( $n = 51$ ) had an average experience close to the midpoint of 3 ( $M = 3.08, SD = 0.94$ ). Participants on average reported more of a growth mindset ( $M = 4.40, SD = 0.51$ ) than a fixed mindset ( $M = 2.18, SD = 0.64$ ) in regard to creativity. A correlation matrix (see Table 1) was then run to evaluate any relationships between the variables. It was found that greater experience with the visual arts ( $r = 0.31, p = .030$ ) and greater enjoyment of the visual arts ( $r = 0.37, p \leq .01$ ) were positively correlated with having a growth mindset. Growth mindset and fixed mindset were differentially correlated with finding art therapy beneficial. Growth mindset had a positive correlation with finding art therapy beneficial ( $r = 0.32, p \leq .01$ ), while fixed mindset was negatively correlated ( $r = -0.13, p \leq 0.38$ ).

The correlation matrix also found that individuals with more reported art experience were more likely to report higher enjoyment of visual arts ( $r = 0.78, p \leq .001$ ), and more likely to engage in art therapy if given the opportunity ( $r = 0.40, p \leq .004$ ). Finally, a willingness to engage in art therapy was also correlated with an enjoyment of the visual arts ( $r = 0.42, p < .002$ ) and if one found creative arts therapies to be beneficial ( $r = 0.55, p \leq .001$ ).

## **Discussion**

These studies examined the role of previous experience with art, stress, and mindset on participants. Study One looked at the connections between art experience and stress levels during an art intervention carried out with two different instruction types: a high stake versus a low stake type. Study Two turned towards fixed and growth mindset in connection to creativity and evaluated connections between mindset type and opinions on the visual arts. The ultimate goal of

both studies was to find components related to engagement in the arts that could lead to a better understanding of Creative Arts Therapies and how to efficiently bring them to a wider population. Both studies were able to pinpoint different takeaways that could help with this mission.

### *Study 1*

Study 1 examined the impact of instruction type on enjoyment and stress levels of individuals who participated in a simple art-based activity. Half of the participants in Study 1 experienced a high-stakes instruction type while half experienced a low-stakes instruction type. Contrary to the hypothesis, there was no significant relationship between instruction type and stress levels. However, stress levels did decrease post intervention, and this was true of both instruction groups rather than just the low stress group. Enjoyment levels of the activity were found to be consistent regardless of group, suggesting that instruction type did not influence either stress levels or enjoyment. Instead, the act of engaging an art activity regardless of instruction type significantly lowered stress levels and resulted in higher enjoyment levels. Finally, it was found that none of the art experience variables correlated with the lowered stress levels, further pointing to the conclusion that it was indeed the simple act of engaging in the art activity that lowered stress levels upon completion.

The current findings pointed towards the conclusion that art related interventions can reduce stress levels in participants, regardless of instruction type and personal art experience. An acceptance of art as beneficial to well-being is at the core of Creative Art Therapies, allowing for possible implications of the findings of this research and existing research on the benefits of Art Therapy as a larger field. Studies have found that engaging in art tasks can decrease and moderate stress and anxiety among university aged students (Beerse, Van, & Stanwood, 2020). As mentioned previously, this and other research points to lower stress levels due to art

interventions particularly when focusing on positive events and ideas (Curl, 2008), as was the case in the current study. Higher levels of enjoyment and satisfaction have also been found in other studies when evaluating art interventions, regardless of any particular diagnosis or reason for treatment (Cole et al., 2018). Finally, participants have reported high satisfaction and success levels regarding participation in the Creative Arts Therapies (Chiang, Reid-Varley & Fan, 2019), relating back to the high enjoyment levels reported in this study. However, this study did not align with most research on performance under pressure and impact of instruction type which finds that stress is typically related to the type of instruction received (Banks & Smyth, 2015). Instead, the finding of no impact of stressful instruction type on enjoyment or stress aligns with the less common outcome of finding that high stress versus low stress task instruction type did not impact participants' stress levels (Meijer & Oostdam, 2007). As one of the only found studies evaluating the direct impact of instruction type and its findings being replicated in the current research, this concept of instruction type impacting stress levels perhaps should be investigated further. Overall, there exists a connection between CAT and stress levels that seen time and time again in research and should continue to be evaluated.

With past and current findings in consideration, it is clear that the field of Creative Arts Therapies deserves more attention and credibility from the counseling and therapy community as a whole. Studies have repeatedly found art interventions to be successful in decreasing stress levels and anxiety across participants with and without mental health diagnoses. The current research pointed to a possibility of neither art experience nor type of instruction interfering with the decreasing of stress levels, suggesting that just participating in an art-based intervention regardless of multiple outside factors can improve mental wellbeing at least in the short term. Increasing the amount of research on CAT could allow for these benefits to become more widely understood which could result in broader adoption of these therapeutic methods. The lack of

impact of instruction type could even point towards the push for a need to integrate the arts into daily life more and not only within therapeutic interventions, creating a simple way for everyday people to experience a calming and stress-reducing task in their own time. Both the structured (in a CAT setting) and unstructured (in one's own time) use of art interventions seem to have higher levels of value than are typically assumed upon reflection of the research takeaways and deserve to be evaluated and integrated more into society.

The current research had a few possible limitations. The way in which the two different instruction group conditions were implemented could have not fully created either a high stress or a low stress instruction type. This could have meant not enough variability between the instructions used by the research in each setting. If replicated, the use of an exact script could be used with no other discussion taking place which could decrease any impact of the role of the instructor besides the intended high stress or low stress instruction type. Another limitation was the small sample size with only forty-five participants in total. The research was conducted at a small college and used a sample of first year psychology students using the study participation for class credit. If replicated, a larger sample size would help to increase the power of the findings.

In general, future research should examine concept of instruction types and the role of instructor. Little current research exists on the impact of stressful instruction type on people's experience of CAT, thus the research presented here must be supported by future empirical research. Additionally, this research on stress impacting experience could extend to other forms of CAT, such as dance and music therapy, as existing literature typically groups all creative arts into one when reporting on takeaways. Pinpointing what each type of therapy helps with the most could be beneficial to help the field develop into a more widely known therapy option.

## ***Study 2***

Study 2 examined how participants' creativity mindset impacted their opinions about the arts. It was hypothesized that participants with greater growth mindset for creativity were expected to report higher enjoyment of the arts and more openness to an art therapy intervention as a whole. This was supported by the findings of the study, as a correlation was found between a growth mindset for creativity and high enjoyment of the arts. Additionally, a growth mindset was positively correlated with believing Creative Arts Therapies beneficial, while a fixed mindset was negatively correlated with the belief in the benefits of CAT. This means that as a growth mindset score rose, meaning a higher belief in the ability to improve one's creative ability, so did the likelihood of believing Creative Arts Therapies to be beneficial. On the other hand, as a fixed mindset score rose, or less belief in the ability to change creative ability, the likelihood to find Creative Arts Therapies beneficial decreased. Additionally, as higher growth mindset for creativity scores and willingness to engage in Art Therapy in the future positively correlated with higher art experience. The final significant correlation was between a willingness to engage in Art Therapy and belief that Creative Arts Therapies are beneficial.

The research found that a growth mindset in regard to creativity was related to art-related factors, such as high enjoyment of the arts and more reported experience with the arts. Past research has not directly examined these connections, though research does show a correlation between a growth mindset for creativity can indicate a higher level of creative identity (Karwowski et. al., 2014). Perhaps those with more reported enjoyment and experience with the arts would be inclined to identify this as an indicator of their creativity, which may relate to a more growth mindset towards creativity. Additionally, the overall understanding for a growth mindset in connection to any attribute is that there is acknowledgement of how perseverance and experience can improve upon said attribute (Popva, 2014). This could be the same for creativity,



with individuals who have seen their own creative ability improve or change with their own experience in the arts developing a growth mindset for creativity. Higher reported art experience also correlated with a willingness to engage in Art Therapy. This could be from their past experiences making them feel more equipped to engage in an art related intervention, or a sense of familiarity with the content allowing the individual to see it as a viable treatment option.

A revealing finding was the inverse relationship between fixed and growth mindset regarding how beneficial Creative Arts Therapies are as a mental health intervention. As stated in the results, a higher growth mindset score correlated with stronger belief in the benefits of CAT, while a higher fixed mindset score correlated with lesser belief in CAT. These findings suggest that a key component of openness to Art Therapy, in this case believing in its benefits and positive effects, is directly impacted by one's creative mindset. There is no existing research on this idea, though it has been found that a fixed mindset correlates with decreased creative mindset skills such as problem solving (Hass et. al., 2019). This could connect with the current research in hypothesizing that if one has a fixed creative mindset, they see themselves as less successful in creative spaces, then leading to a decreased likelihood of expecting creative based intervention types to be beneficial. This inverse relationship should be examined more in the future to validate the connection found in this research between creative mindset type and openness to Creative Arts Therapies.

A limitation of this study was the number of participants and lack of demographic diversity. There were 51 participants, with the majority being white women. There was more diversity among gender identity than race, and there was a wide array of reported academic majors. With a larger sample size and a broader array of participants, the findings may have been more generalizable. Finally, an overall lack of research in the field leaves the findings of this

study standing isolated. If there is more research into the importance of art interventions, impacts of creative mindset types, and the expansion of Creative Arts Therapies, then future research will have more to look towards and build upon rather than standing alone. Further future research should also try to pinpoint if it is possible for a creative mindset type to change, as if an individual's mindset could shift from fixed to growth, meaning an increase in growth mindset tendencies and a decrease in fixed mindset tendencies, it could lead to more openness to and enjoyment of the visual arts and Creative Arts Therapies.

The current research alludes to a crucial relationship between creative mindset type and enjoyment of the visual arts. This could mean that without possessing a growth mindset in regard to creativity, it becomes harder for one to find enjoyment in the visual arts overall. It is currently unclear if one can develop more growth mindset qualities and decrease their fixed mindset qualities. However, the current research found that more experience in the visual arts correlated to a more growth mindset type, which could mean that increased exposure and practice with visual arts could cause more individuals to possess a growth mindset in regard to creativity. An overall increase in access to and practice with the visual arts would be beneficial across the board while also possibly leading to more openness and belief in the benefits of the visual arts and its associated intervention types. Future research should also attempt to continue to expose participants to Creative Arts Therapies, The field of Creative Arts Therapies should overall work towards an increase in empirical research in order to bring more evidence to the general public about its benefits and importance as an intervention type, which will in turn allow for a wider awareness of the benefits of CAT and lead to more therapists and clients, and more nuanced research to emerge in connection to a wider array of baseline research.

### ***Conclusion***

Overall, both studies point towards not only the benefits of Creative Arts Therapies, but the need for more research into the field. The first study, examining responses to a concrete intervention, found that regardless of instruction type or past art experience, enjoyment of an art-based activity was reported high and decreased participants' stress levels. The second study, looking more at overall feelings related to art interventions, found that a high growth mindset type for creativity was related to higher enjoyment of the visual arts and a belief in the benefits of Creative Arts Therapies, while a high fixed mindset correlated to less belief in the benefits of Creative Arts Therapies. With the findings of these two studies working together, it makes it easier to see how the concepts related to the arts can be different in theory than in practice. For example, the first study found no relation between past art experience and reported enjoyment of the performed activity. However, the second study did find a correlation between art experience and reported enjoyment of the visual arts as a field. Perhaps there is a disconnect between a person's perception of the visual arts and their actual opinions while experiencing it. It is likely that many people who may not identify themselves as 'good' at art could still enjoy and experience stress relief from these activities. Going forward, this disconnect should be addressed and be a main focus of the field of Creative Arts Therapies, as bridging the two sides could lead to wider acceptance of Art Therapy as a type of intervention for all people. Developing research in the field is crucial to show therapists that CAT is effective, and to campaign to show clients, those with and those without arts experience, that it could be a valuable intervention type for them. With an increase in evidence-based benefits and a growing understanding of how to allow people to find these art intervention benefits as more applicable to their own self, hopefully the CATs will be able to find its footing in the mainstream as a viable and important treatment type for all people.

## Appendix

### Table 1

*Correlation Table (Pearson's  $r$ ) for Study Two*

|                        | <i>Growth Mindset</i> | <i>Fixed Mindset</i>  | <i>Experience Avg.</i> | <i>Enjoyment Avg.</i> | <i>CAT Beneficial</i> | <i>CAT Engagement</i> |
|------------------------|-----------------------|-----------------------|------------------------|-----------------------|-----------------------|-----------------------|
| <i>Fixed Mindset</i>   | -0.209                |                       |                        |                       |                       |                       |
| <i>Experience Avg.</i> | 0.305 <sup>[1]</sup>  | -0.169                |                        |                       |                       |                       |
| <i>Enjoyment Avg.</i>  | 0.373 <sup>[2]</sup>  | -0.126                | 0.781 <sup>[2]</sup>   |                       |                       |                       |
| <i>CAT Beneficial</i>  | 0.316 <sup>[1]</sup>  | -0.322 <sup>[1]</sup> | 0.150                  | 0.187                 |                       |                       |
| <i>CAT Engagement</i>  | 0.173                 | -0.229                | 0.397 <sup>[2]</sup>   | 0.417 <sup>[2]</sup>  | 0.550 <sup>[2]</sup>  |                       |

<sup>[1]</sup>  $p$  value  $\leq 0.05$

<sup>[2]</sup>  $p$  value  $\leq 0.01$

## References

- Banks, J., & Smyth, E. (2015). ‘Your whole life depends on it’: Academic stress and high-stakes testing in Ireland. *Journal of Youth Studies, 18*(5), 598–616.  
<https://doi.org/10.1080/13676261.2014.992317>
- Beerse, M. E., Van Lith, T., & Stanwood, G. (2020). Therapeutic psychological and biological responses to mindfulness-based art therapy. *Stress and Health: Journal of the International Society for the Investigation of Stress, 36*(4), 419–432.  
<https://doi.org/10.1002/smi.2937>
- Caddy, L., Crawford, F., & Page, A. C. (2012). “Painting a path to wellness”: Correlations between participating in a creative activity group and improved measured mental health outcome. *Journal of Psychiatric and Mental Health Nursing, 19*(4), 327–333.  
<https://doi.org/10.1111/j.1365-2850.2011.01785.x>
- Chiang, M., Reid-Varley, W. B., & Fan, X. (2019). Creative art therapy for mental illness. *Psychiatry Research, 275*, 129–136.  
<https://doi.org/10.1016/j.psychres.2019.03.025>
- Cohen, S., Kamarck, T., & Mermelstein, R. (1994). Perceived stress scale. *Measuring stress: A guide for health and social scientists, 10*(2), 1-2.
- Cole, A., Jeneffsky, N., Ben-David, S., & Munson, M. R. (2018). Feeling connected and understood: The role of creative arts in engaging young adults in their mental health services. *Social Work with Groups, 41*(1–2), 6–20.  
<https://doi.org/10.1080/01609513.2016.1258619>
- Crisson, J. E., Seta, J. J., & Seta, C. E. (1995). The influence of expectations on task performance in audience and solitary settings. *Basic and Applied Social Psychology, 17*(3), 357–370. [https://doi.org/10.1207/s15324834basp1703\\_5](https://doi.org/10.1207/s15324834basp1703_5)

Curl, K. (2008). Assessing stress reduction as a function of artistic creation and cognitive focus.

*Art Therapy, 25*(4), 164–169.

<https://doi.org/10.1080/07421656.2008.10129550>

Hass, R. W., Katz-Buonincontro, J., & Reiter-Palmon, R. (2019). The creative self and creative

thinking: An exploration of predictive effects using Bayes factor analyses. *Psychology of Aesthetics, Creativity, and the Arts, 13*(4), 375–387.

<https://doi.org/10.1037/aca0000169>

Hinz, L. D. (2017). The ethics of art therapy: Promoting creativity as a force for positive change.

*Art Therapy, 34*(3), 142–145.

<https://doi.org/10.1080/07421656.2017.1343073>

Karwowski, M. (2014). Creative mindsets: Measurement, correlates, consequences. *Psychology*

*of Aesthetics, Creativity, and the Arts, 8*(1), 62–70.

<https://doi.org/10.1037/a0034898>

Karwowski, M., Royston, R. P., & Reiter-Palmon, R. (2019). Exploring creative mindsets:

Variable and person-centered approaches. *Psychology of Aesthetics, Creativity, and the Arts, 13*(1), 36–48.

<https://doi.org/10.1037/aca0000170>

Lee, E. (2012). Review of the Psychometric Evidence of the Perceived Stress Scale. *Asian*

*Nursing Research, 6*(4), 121-127.

<https://doi.org/10.1016/j.anr.2012.08.004>

Li, P., Zhang, Z. S., Zhang, Y., Zhang, J., Nunez, M., & Shi, J. (2020). From implicit theories to

creative achievements: The mediating role of creativity motivation in the relationship

between stereotypes, growth mindset, and creative achievement. *The Journal of Creative Behavior*.

<https://doi.org/10.1002/jocb.446>

Lo, A., & Abbott, M. J. (2019). Affective, cognitive, and behavioural responses to repeatedly demanding performance expectations across adaptive and maladaptive dimensions of perfectionism. *Canadian Journal of Behavioural Science / Revue Canadienne Des Sciences Du Comportement*, 51(4), 278–289.

<https://doi.org/10.1037/cbs0000144>

Meijer, J., & Oostdam, R. (2007). Test anxiety and intelligence testing: A closer examination of the stage-fright hypothesis and the influence of stressful instruction. *Anxiety, Stress & Coping: An International Journal*, 20(1), 77–91.

<https://doi.org/10.1080/10615800600967862>

Merced, M. (2019). The psychodynamics of “choking” under performance pressure. *Practice Innovations*, 4(1), 28–41.

<https://doi.org/10.1037/pri0000080>

Metzger, R. L. (1976). A reliability and validity study of the State-Trait Anxiety Inventory. *Journal of Clinical Psychology*, 32(2), 276–278.

[https://doi.org/10.1002/1097-4679\(197604\)32:2<276::AID-JCLP2270320215>3.0.CO;2-](https://doi.org/10.1002/1097-4679(197604)32:2<276::AID-JCLP2270320215>3.0.CO;2-)

Muran, J. C., & Eubanks, C. F. (2020). The science of performance under pressure. In *Therapist performance under pressure: Negotiating emotion, difference, and rupture*. (pp. 13–27). American Psychological Association.

<https://doi.org/10.1037/0000182-002>



Popova, M. (2014). Fixed vs. growth: The two basic mindsets that shape our lives. *Brain Pickings*.

Spielberger, C. D., Gonzalez-Reigosa, F., Martinez-Urrutia, A., Natalicio, L. F., & Natalicio, D. S. (1971). The state-trait anxiety inventory. *Revista Interamericana de Psicología/Interamerican Journal of Psychology*, 5(3 & 4).

Zimmermann N, Mangelsdorf H., H. (n.d.). Emotional benefits of brief creative movement and art interventions. *The Arts in Psychotherapy*. 2020; 70.

<https://doi.org/10.1016/j.aip.2020.101686>