CREATIVITY AND HUMOR:

AN INVESTIGATION OF HUMOR AS A CREATIVE STIMULUS

A Thesis Presented
By
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ABSTRACT

This thesis project is based on the belief that humor can be utilized as a creative stimulus within art education. The aim of this thesis project is to prove that humor can be used to promote creativity through an experimental study that tests for creativity before and after humor exposure. This thesis research also analyzes and reflects on a mix of art education literature pertaining to the correlation between creativity and humor. This investigation views humor as a tool used to enhance student creativity. The primary method of investigation for the thesis project is action research (May, 1993). This method of inquiry took the form of developing, administering, evaluating, and reflecting upon tests of student creativity before and after receiving a humor stimulus, in order to demonstrate how humor can be used to enhance creativity in the visual arts. The assembled data provides evidence in support of utilizing humor as a creative catalyst. The information available in this study can assist art educators in recognizing the value of using humor to stimulate student creativity through humor expression and humor appreciation.

DEDICATION

I dedicate this study to all my art teachers throughout the years for inspiring me to pursue a career in the arts myself and inspire the young creative minds of today to do the same.

Thank you all for the helpful advice, guidance, and support you've given me along the way.

I would also like to dedicate this study to the Cumberland, RI Parks and Recreation Department for awarding me the title of *'Most Humorous'* in the 2002 summer camp talent show.

ACKNOWLEDGEMENTS

I would like to thank my loving parents for their unconditional patience and amazing support as I pursued my passion to become an art teacher. Thank you to my family and friends for their endless love and support along the way. Thank you to the art students that were able to participate in my experimental study, as well as their cooperating art teachers. Most importantly, thank you to my Pépère for his fun-loving sense of humor and for always being my biggest fan.

I would also like to thank my thesis committee, Dr. Rebecca Shipe, Dr. C. David Brell, and Mr. Douglas Bosch, for their collective guidance, expertise, and support. Thank you to the Rhode Island College Department of Art faculty for supporting me as an art student during my undergraduate degree and now my M.A.T. in Art Education. With all these names mentioned and more, my success in completing my thesis project and graduate degree would not have been possible without the amazing people in my life.

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CHAPTER 1

INTRODUCTION

This thesis project is based on my belief in the importance of providing students with opportunities to further develop their creativity and creative self-expression within a visual arts curriculum. Moreover, that creative skills involving divergent thinking abilities, such as critical thinking, innovation, problem solving, and decision-making, can be developed through arts-based learning experiences (Csikszentmihalyi, 1999; Kaufman, 2009; Kelley & Kelley, 2013; Beghetto &. Kaufman, 2014). This thesis project also works to document and promote the use of humor as a positive creative stimulus (Goodchilds, 1972; Ziv, 1976; Goleman, 1995; O'Quin & Derks, 1999; Kaufman, 2009; Ma, 2014; Chen, Chen, & Roberts, 2019). Through my research, exploration, experimentation, and analysis, I intend to investigate and illustrate how exposure to humor can be used to stimulate creativity and creative thinking within a visual arts curriculum.

Need for the Study

In today's global economy, creativity, individuality, and innovation are keys to success (Skippington, 2016, p. 67). Art education has tremendous potential to foster creativity, identity, innovative and critical thinking, communication skills, environmental values, and social cohesion (Guilford, 1950; Beghetto, Kaufman & Baer, 2014). Creativity is often recognized as a staple of art education; however, many art educators struggle with planning and developing student learning outcomes focused on creativity within their curricula (Kelley & Kelley, 2013; Marshall, 2015; Bastos & Zimmerman, 2015). Research on the correlation between creativity and humor suggests that humor has a positive influence on creativity, which can be effectively used to stimulate

creative thinking in a classroom setting (Ziv, 1976; Goleman, 1995; Chen, Chen, & Roberts, 2019). This thesis project presents research, examples, and insights to assist art educators, including myself, to recognize humor's ability to stimulate creativity and creative thinking within a visual arts curriculum.

Personal Background and Interests

My interest in researching creativity and teaching for creative development stemmed from looking back at my own childhood in comparison to children growing up today and analyzing how the substantial differences in upbringing might have an influence on the development of creativity. I grew up in the 1990s with a mother and grandmother, both artists who consistently emphasized the importance of creative play. In contrast to the pink and purple princess-themed bedrooms of young girls, in the 1990s and still today, my bedroom was covered in the primary colors: red, blue, and yellow everything. My mom's decision not to decorate my bedroom with conventional colors for young girls at the time was just the beginning of my creative journey, as these decor choices lead to many conversations of color groups and combinations at a younger age than most. Growing up in New England, I was able to observe and experience seasonal changes from my front lawn. Spending time outside was routine and expected; rain and snowstorms were no exception. Each day as school was dismissed, I raced home to play outside with the other kids who lived around the neighborhood. I had to physically knock on their front doors and ask them if they were available to play outside; I view this as the foundation of developing basic conversation skills. There were no quick calls or text messages. We couldn't even use our home landline telephone and the Internet at the same time. With no cellphones, laptops, social media platforms, or other 21st century technological advances, most of our play was left to the imagination. From storytelling and role-playing to building forts from nature, it didn't take more than a couple sticks to have fun.

As a result of immense technological advances over the last two decades, young children are increasingly becoming more engaged in technology and cyber learning, which raises concern for their health, safety, and their ability to think and make decisions for themselves. The use of technology and social media does have benefits, like the ability to create opportunities for local, national, or global communication and collaboration. However, it also presents several risks for young students, which include but are not limited to identity theft, social anxiety, cyber-bullying, loss of self-esteem, and depression. While digital tools provide today's youth with opportunities for creative development and innovation through various social media platforms, opportunities to form physical personal connections or to exercise fine motor skills are lost when every moment of their lives is spent interacting with a screen. For this reason, I believe it is important for creativity to cement its place in K-12 art education, providing students with opportunities to think, create, imagine, innovate, express themselves, build interpersonal skills, and grow as a creative individual.

In addition to my creative drive, a sense of humor was also instilled in me during my youth. I would say it all started with reading the daily comics in the newspaper while my grandfather enjoyed his morning coffee, and quickly resulted in weekly Robin Williams movie marathons, staying up after bedtime to watch *Saturday Night Live*, and being awarded "Most Humorous" at the 2003 school talent show. My sense of creativity and humor have both always been significant parts of who I am as an individual, but it wasn't until my early 20's that I realized that they aren't mutually exclusive. My sense of humor contributes to my sense of creativity, and vice versa.

In 2017, I earned my bachelor's degree in Fine Arts from Flagler College; in the process, I discovered that aside from my lifelong passion for creating art, I also had a passion for teaching art. This realization led me to continue my education and enroll in the Master of Arts in Teaching in Art Education Program at Rhode Island College. As the world continually needs new creative

minds to think outside of the box, art educators need to consider how they are promoting student creativity in their art teaching. The artistic and creative development of students will flourish when encouraged and guided by a qualified art teacher who fosters and actively promotes their creativity. I believe that the correlation between creativity and humor can work to stimulate creativity and creative thinking within a visual arts curriculum.

Methods of Investigation

The examination of collected research relevant to my thesis project employs a philosophical-research approach. My research analyzes and reflects on a selection of art education literature and resources pertaining to the development of creativity through art education, student-learning opportunities that promote creativity, and utilizing humor as a creative stimulus. While there are prior correlation studies that compare humor exposure with creativity tests (Treadwell, 1970; Rouff, 1975; Clabby, 1980; Humke & Schaefer, 1996), my thesis focuses specifically on the correlation between facets of humor and their influence on visual arts creativity tests.

The primary method of investigation for my thesis project is action research (May, 1993). Action research is a field-based systematic inquiry that aims to change one's teaching practice (Corey, 1953; McNiff, 2002). My action research took the form of developing, delivering, and reflecting upon tests of creativity, both with and without the use of humor as a creative stimulus. I have used this method of investigation in order to guide my thesis project and inform my future art teaching. I believe that this documentation presents the value of humor as a creative stimulus, as students performed better following exposure to humor. As an action researcher, my findings and assembled data provide valuable evidence, supporting the use of humor to stimulate creativity, that will contribute to the refinement of my future art teaching practice and the development of a creativity-enhancing visual arts curriculum.

Definitions

Key terminology used throughout this thesis project:

Creativity – (1) the use of imagination or original ideas, specifically in the production of artistic work. (2) the ability to produce work that is original and appropriate (Berk, 2000). (3) an inherent part of the everyday human experience and certain conditions make it more or less likely to be expressed (Beghetto & Kaufman, 2014).

Humor – (1) when two or more things come together unexpectedly, finding non-obvious connections (Koestler, 1964). (2) begins with a humor stimulus, such as verbal jokes, which is recognized in two dimensions: humor structure, the way the stimulus is presented, and humor content, the meanings or topics of the stimulus (Chen, Chen, & Roberts, 2019). (3) "Humor is a departure from the norm playfully considered" (Halsey, 1970, p. 11).

Delimitations of the Study

Creativity and humor are both very broad topics that can be researched through various avenues of inquiry. For this reason, research on creativity and humor is most effective when specific boundaries and limitations are put in place. In addressing the limitations of this thesis project and the wide scope of research concerning creativity and humor, I have directed my focus on the development of creativity through visual arts, teaching for creativity, testing for creativity, and utilizing humor as a creative stimulus in art education.

Organization of the Thesis

The following is comprised of four chapters that report my thesis investigations and reflections.

Chapter 2: A Review of Art Education Literature on Creativity, Humor, and Their Correlation:
This chapter critically examines, analyzes, and reflects on a variety of art education literature concerned with creativity and humor. The literature review is divided into five separate sections: defining creativity, developing creativity, teaching for creativity, testing for creativity, and using humor as a creative stimulus.

Chapter 3: An Experimental Investigation on Humor's Ability to Influence Creativity:
This chapter discusses my experimental investigation on humor's ability to influence creativity in high school art students. Furthermore, this chapter includes information on the experiment participant groups, the chosen creativity tests and facets of humor, evaluating student creativity, and documentation of student creativity tests.

Chapter 4: Results and Analysis of Results:
This chapter reports on and provides documentation of the creativity test results from both experiment participant groups. This is then followed by a critical analysis of the experiment results in relation to my thesis.

Chapter 5: Concluding Thoughts:
This final chapter provides summary reflections of my experimental investigation on creativity and humor and comprised thesis research. Additionally, this chapter includes my thoughts on future investigations and initiatives to further my research and professional development.

CHAPTER 2

A REVIEW OF ART EDUCATION LITERATURE ON CREATIVITY, HUMOR, AND THEIR CORRELATION

Creativity is diverse, and for this reason, creativity research is most effective when it is domain specific (Baer, 2016). This chapter will critically review selected literature concerned with the concept of creativity within the domain of visual arts education. The following will be divided into five sections: defining creativity, developing creativity, teaching for creativity, testing for creativity, and humor as a creative stimulus.

Defining Creativity

Many contemporary psychologists and educators agree that the term "creativity" is often used too generally, making it difficult to compose one precise definition. Guilford (1950) argues that for something to be creative, it must be both original and task appropriate. Simonton (2012) presents Guilford's definition as an equation: Creativity = Originality x Appropriateness. By this definition, if either originality or appropriateness is zero, then it's not creative. Furthermore, the work of Beghetto and Kaufman (2014) expands on this expression in order to include context: $C = [O \times A]_{context}$ (p. 5). Whether or not something should be considered original or task appropriate is determined by the particular social, cultural, or historical context in which it was produced (Beghetto, Kaufman, & Baer, 2014, p. 21).

According to Sternberg (1999), people are not creative in a general sense; they are creative in specific domains, such as the visual arts. Similarly, Csikszentmihalyi (1996) and Baer (2016) both argue that creativity can be defined as an act, idea, or product that changes an existing domain or establishes a new one. Within a specified domain, Kaufman (2009) proposes that, "creativity must represent something different, new, or innovative, and must also be appropriate to the task at hand" (p. 5). Creativity, while often viewed as unconstrained originality, can thrive within restraints (Beghetto, Kaufman, & Baer, 2014, p. 18). From this perspective, and in relation to my

future career as an art educator, creativity should be thought of as originality expressed within the conventions and constraints of visual arts education.

Developing Creativity

Wilson (1953) tried to define and measure abilities that may be important in creative thinking, creative development, and the production of creative work. A list of eight abilities was developed, which included: the ability to identify problems, the ability to rapidly call up ideas, the ability to change, the ability to produce ideas that are uncommon, clever, or remote, the ability to work through problems, the ability to break things down into essential parts, the ability to organize parts into wholes, and the ability to take something, or part of something, and use it in a new way. While these abilities promote creativity and creative thinking, according to Barron (1969), there is no such thing as "instant creativity" (p. 3). Furthermore, creativity is not just the result of momentary inspiration, it involves the organization and structuring of experiences overtime (Anderson, 1959).

Teaching Creativity

Teaching for creativity in the classroom starts with recognizing that everyone has creative potential, both students and teachers. According to Torrance (1973), the most important and powerful thing that teachers can do is to help their students attain a sense of identity (p.849). Each student has different interests, different beliefs about their capabilities, and different levels of prior knowledge, all of which play a significant role in their creative development (Beghetto & Kaufman, 2014, p. 12). Csikszentmihalyi (1999) further highlights the importance of recognizing that creativity emerges from a mix of both individual and social factors.

Beghetto and Kaufman (2014) emphasize that teachers can cultivate a creativity-supportive learning environment by helping students learn how to take charge of their own creativity and develop confidence in their own creative ideas (p. 20). As an art educator, this will involve using activities that will encourage students to use their imagination, generate, record, and evaluate their own ideas, think outside-of-the-box, and work through creative problems. This will also involve providing students with opportunities to play, explore, and make their own choices, as well as incorporating student interests within my art instruction in order to increase engagement. Additionally, Torrance (1965) encourages teachers looking to further the creative development of their students to ask questions that require creative, critical, and imaginative thinking, rather than questions that call for textbook information (p. 460). According to Beghetto and Kaufman (2014), "Teachers should view themselves and their teaching as a creative act" (p. 26). This includes encouraging students to express their creativity and individuality, providing supportive feedback to students when they do, and modeling creativity for students through daily teaching instruction.

Testing Creativity

Creativity is like a muscle that can be strengthened through continuous effort and exercise (Kelley & Kelley, 2013, p. 2). Furthermore, engaging in activities that promote creative or unconventional thinking has the potential to encourage the generation of new ideas. While many creativity tests exist today, thirty circles, thirty squares, and complete the drawing are the three activities that were used throughout this thesis project. The goal of the thirty circles exercise is to test creativity by having students turn as many circles as they can into recognizable objects, in a short period of time (Kelley & Kelley, 2013, p. 219). This exercise offers students an opportunity to generate new ideas or creative solutions on their own. This thesis utilized the thirty circles exercise, as well as a modified thirty squares exercise, in order to investigate humor's influence

on creativity and the creative thinking process. These exercises also encourage students to develop fluency and flexibility of ideas. The fluency of ideas refers to the speed and quantity, and the flexibility of ideas refers to the differences and distinctions. The Torrance Tests of Creative Thinking (TTCT), developed by Paul E. Torrance, measures creativity in both figural and verbal forms (Torrance, 2008). The figural form of the TTCT has three sub-tests: picture construction, picture completion, and lines/circles (Kaufman, 2009, p. 16). The complete the drawing exercise used in this project was developed using the figural form of the TTCT as a guide. Two creativity tests will be administered to students one after the other, with a humor stimulus occurring between them. The results of the two tests will be used in order to determine whether humor can be effectively used as a stimulus to promote creativity.

Humor as a Creative Stimulus

Research has shown that humor can help people be more creative in problem solving (Goodchilds, 1972; Ziv, 1976; Goleman, 1995; O'Quin & Derks, 1999; Kaufman, 2009; Ma, 2014; Chen, Chen, & Roberts, 2019). Goodchilds (1972) stated that, "the person who is spontaneously humorous is, by the same token, spontaneously creative" (p.187). Humor makes people feel relaxed, builds positive attitudes, forms an atmosphere of playfulness, reduces stress, and releases individuals from anxiety (Chen, Chen, & Roberts, 2019). Research also suggests that exposure to humor can fuel creativity (Ziv, 1976). Goleman (1995) suggests, "one way to help someone think through a problem is to tell them a joke" (p.85). In other words, laughter can be used to help people solve problems, that demand creative solutions, by making it easier to think more broadly and associate ideas more freely (Goleman, 1995).

"A funny joke can open a gateway" (Chen, Chen, & Roberts, 2019, p. 91). A good mood can enhance a person's ability to think more flexibly and with more complexity (Goleman, 1995).

In an experimental study of 10th grade students, listening to humorous expressions increased scores on the TTCT compared to a control group (Ziv, 1976). Another study found that people who had just watched television bloopers were better at solving a puzzle long used by psychologists to test creative thinking (Isen, Rosenzweig, & Young, 1991). The test gave participants a candle, matches, and a box of tacks, and were instructed to attach the candle to a corkboard wall so that no wax would drip onto the floor while it burned. Participants who watched the television bloopers, compared to others who had watched a film on math or who exercised, were more likely to find an alternative use for the tack box as a candleholder (Goleman, 1995). Similarly, increased performance on insight creativity tasks occurred after watching a comedy film (Isen, Daubman, & Nowicki, 1987). These findings suggest that humor has a positive effect on creativity and can be used as a creative stimulus.

Art educators need to acknowledge that all students have creative potential and express their creativity in some form or another, both in and out of the classroom. Beghetto and Kaufman (2014) recommend "striking a balance between providing structure and freedom so that students feel supported and encouraged to take the risks necessary for creative expression" (p. 15). Research on the relationship between creativity and humor acknowledges a sense of humor as a characteristic of creative individuals and suggests that individuals with a good sense of humor are more likely to generate creative ideas (Goodchilds, 1972). This thesis project expands further upon the realm of research regarding creativity and humor, with a particular focus on using humor as a creative catalyst in the art classroom.

CHAPTER 3

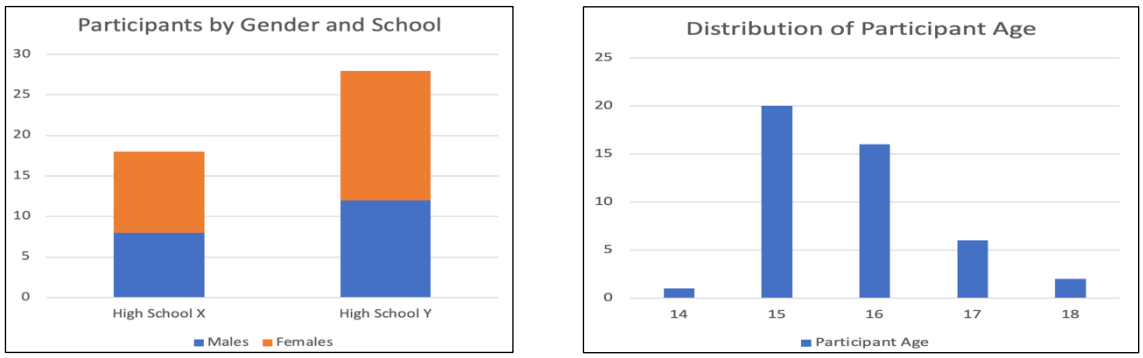
AN EXPERIMENTAL INVESTIGATON ON HUMOR'S ABILITY TO INFLUENCE CREATIVITY

The Purpose of the Experiment

This experimental investigation was conducted in order to determine the effectiveness of using humor as a creative stimulus in the visual arts. The experiment was delivered in three parts: the first creativity test, the humor stimulus, and the second creativity test. Equal time (4 minutes) was allotted to each part of the experiment. By delivering the humor stimulus in-between the creativity tests, the results of the first test were compared to the results of the second test in order to show the effect humor had on student creativity.

The Participants

This test was administered to 46 participants (20 male, 26 female) in two experiment groups: 18 art students from High School X and 28 art students from High School Y. The gender breakdown of the participants by school is shown in Figure 1a. The combined age range of the participants was between 14 and 18. The mean age is 15 and the median age is 16. The age distribution of the participants is shown in Figure 1b.



(a) (b)

Figure 1. Age and Gender of Experiment Participants

Overview of Tests and Forms:

This experiment is composed of three parts. The first part is a baseline creativity test to see how creatively students performed without being stimulated by humor. The baseline creativity test used for both experiment participant groups is the thirty circles test, shown in Figure 2 (Kelley & Kelley, 2013). For this test, each student was given 4 minutes to transform as many of the thirty blank circles as they could into recognizable objects, such as a smiley face or a soccer ball.

The second part involves the delivery of a humor stimulus. Studies have found that being exposed to humor prior to creativity tests increases creative potential (Ziv, 1976; Ziv, 1983; Isen, Daubman, & Nowicki, 1987; Isen, Rosenzweig, & Young, 1991). This experiment utilized two forms of humor exposure. The first experiment participant group was exposed to humor through telling funny jokes to one another. A list of school-appropriate jokes was provided for students and is shown in Figure 3. In a similar study, it was found that 10th grade students who listened to humorous expressions before taking the TTCT received higher scores compared to students that were not exposed to humor (Ziv, 1976). The second experiment participant group was exposed to humor through watching a short comedy sketch. This humor stimulus was chosen in response to a similar study where increased performance on insight creativity tasks occurred after watching a comedy film (Isen, Daubman, & Nowicki, 1987).

The third part of this experiment involves students taking a second creativity test after being exposed to humor. The first experiment participant group was given a complete the drawing test that was developed using the figural form of the TTCT as a guide (Torrance, 2008). Students were provided a worksheet with thirty abstract lines, shown in Figure 4, and were given 4 minutes to complete as many drawings as they could, using the lines provided. The second experiment participant group was given the thirty squares test, shown in Figure 5, which is a modified version of the thirty circles test (Kelley & Kelley, 2013). For this test, like the thirty circles test, each

student was given 4 minutes to transform as many of the thirty blank squares as they could into recognizable objects, such as a box or a window. The transition to the thirty squares test with the second participant group, opposed to the initial complete the drawing test, was made in order to increase the validity of the experiment. The thirty circles test and the thirty squares test are more alike, which consequently made it easier to compare the results of the first test to the second.

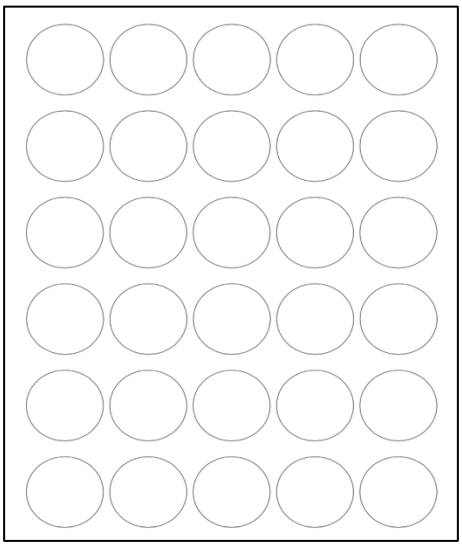


Figure 2. The Thirty Circles Test

Why shouldn't you write with a broken pencil?
Because it's pointless

Why did the cookie go to the hospital?
Because he felt crummy

Why didn't the skeleton go to the dance?
He had no body to go with

What do you call a sleeping bull?
A bulldozer

What has one head, 1 foot and 4 legs?
A Bed

Why did the chicken get a penalty?
For fowl play!

What do you call a cow with no legs?
Ground beef.

Why can't Dalmatians win hide & seek?
Because they're always spotted!

Why did Cinderella get kicked off the baseball team?
She always ran away from the ball.

Why are ghosts bad liars?
Because you can see right through them!

What do you call a man who can't stand?
Neil.

What do you call a fake noodle?
An impasta

What rock group has four men who don't sing?
Mount Rushmore.

Why did the scarecrow win an award?
He was outstanding in his field.

Why is no one friends with Dracula?
He's a pain in the neck.

Why are fish so smart?
Because they live in school.

What does an angry pepper do?
Gets jalapeño face.

How are dogs like cell phones?
They both have collar ID

What do you call a pig that knows karate?
A pork chop!

What do you call a funny mountain?
Hill-arious.

Figure 3. School-Appropriate Jokes

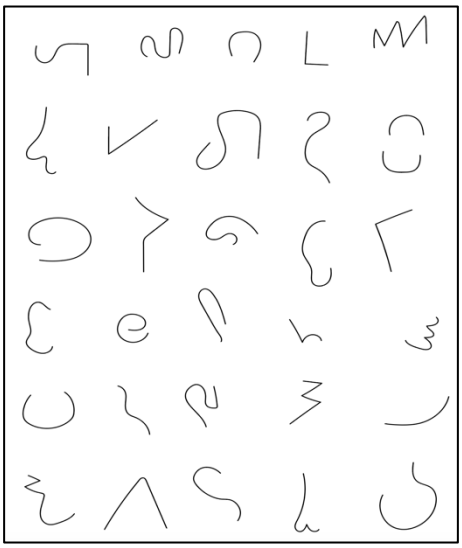


Figure 4. Complete the Drawing Test

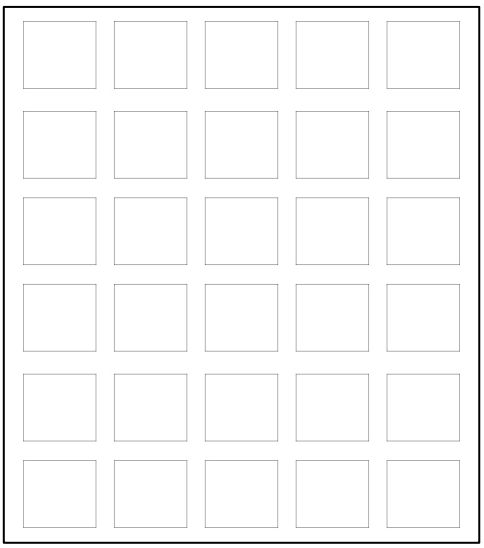


Figure 5. The Thirty Squares Test

Evaluation

The creativity tests were individually evaluated and given a score out of 60 points. Using the thirty circles test as an example, 1 point was earned for every completed circle, which means 30 points would be earned if all thirty circles were completed. Additionally, 1 point was earned for every original drawing completed. For example, if a student completed five circles by drawing a soccer ball, a baseball, a basketball, a tennis ball, and an eyeball, they would earn 5 points for completing five circles, but only 2 points for the originality of their drawings. This is because four of the five circles are round sports balls, while an eyeball falls under the category of facial anatomy. Furthermore, this student would earn 1 point for their idea to turn the circles into sports related balls, and 1 point for using the circle to create an eyeball. This creativity test evaluation example is illustrated in Figure 6. If a student was to complete all thirty circles and no two circles were similar in nature, they would earn a perfect score of 60 points. The complete the drawing test and the thirty squares test was evaluated using the same point system. After a numerical score was assigned to the first creativity test and the second creativity test, the two scores were compared in order to see whether students performed more creatively following the exposure to humor. Moreover, students receiving a higher score on the second test would work to support the idea that humor can be used as a creative stimulus.

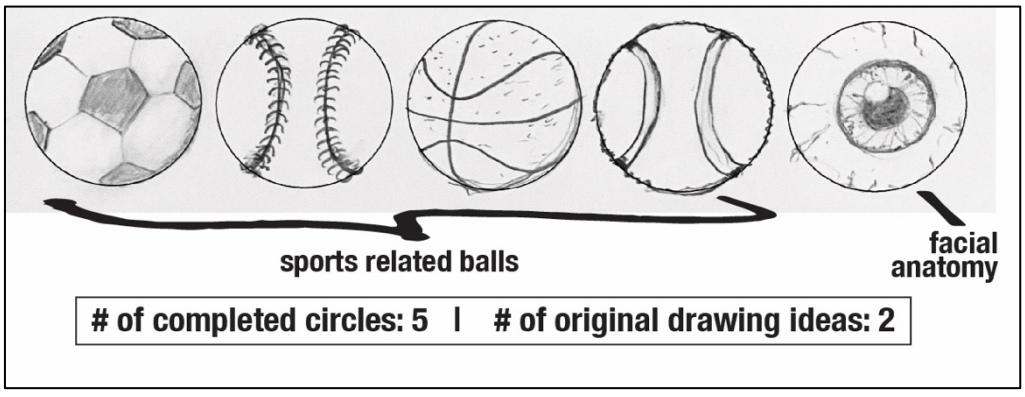


Figure 6. Creativity Test Evaluation Example

The First Participant Group

The first experiment participant group was made up of 18 art students from High School X (8 male, 10 female). All 18 students were enrolled in the school's Drawing & Painting art course, which is offered to all students in grades 9 through 12. The experiment took place in their own art classroom, which made for a comfortable testing environment. At the start of the testing process, all students were instructed to clear their desk of everything besides a pencil. Students were then introduced to the thirty circles test, which will serve as a baseline test of creativity, and given testing instructions. After each student received a thirty circles worksheet, they were given 4 minutes to transform as many circles as they could into recognizable objects. When time was up, the worksheets were collected, and each student was given a joke card with a list of school-appropriate jokes. Students were then given 4 minutes to share their jokes with their other classmates. Following the exposure to humor through the exchange of jokes, students were introduced to the complete the drawing test. Students received a complete the drawing worksheet and were again given 4 minutes to transform as many of the provided incomplete line drawings as they could into recognizable objects. When time was up, the worksheets were collected, and were ready to evaluate and score. The results of the first test were compared to those of the second test in order to see whether students performed better following the humor stimulus.

While the first participant group did well with the overall testing process, there were some aspects of the testing forms and guidelines that were modified in order to improve student performance and the validity of results in the second participant group. The first modification made was providing students with more detailed instructions explaining what exactly is expected of them as they complete the circle test. To ensure students understood testing expectations, a simplified example of what to do was reviewed prior to taking the test. The provided example used triangles in place of circles to show students how they should use the shape to create the recognizable object,

instead of drawing any random recognizable object inside of the shape. This example of student response expectations and guidelines is illustrated in Figure 7. The second modification made was switching the second creativity test from the complete the drawing test to the thirty squares test. This decision was made to improve the validity of the testing results, as the thirty circles test and the thirty squares test are more alike, have similar instructions, and the results of these two tests are easier to compare to one another.

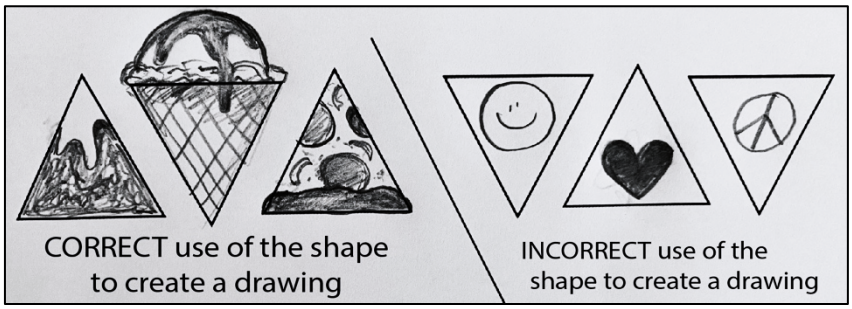


Figure 7. Student Response Expectations & Guidelines

The Second Participant Group

The second experiment participant group was made up of 28 art students from High School Y (12 male, 16 female). All 28 students were either enrolled in the school's Drawing I art course or the Painting I art course, both of which are offered to all students in grades 9 through 12. To ensure a comfortable testing environment, the experiment took place in their own art classroom. At the start of the testing process, all students were instructed to clear their desk of everything besides a pencil. Students were then introduced to the thirty circles test, which will serve as a baseline test of creativity, and given detailed testing instructions. To ensure student understanding, they were also provided with a modified example of the test in order to give them a visual idea of what they should be doing and how they should be doing it. After each student received a thirty circles worksheet, they were given 4 minutes to transform as many circles as they could into

recognizable objects. When time was up, the thirty circles test worksheets were collected, and students were instructed to direct their attention toward the projector screen at the front of the classroom. Instead of having students share jokes with one another, like the first participant group did, the second participant group was exposed to humor through watching short comedy sketch. This humor stimulus was chosen in response to a similar study where increased performance on insight creativity tasks occurred after watching a comedy film (Isen, Daubman, & Nowicki, 1987). According to Nielson (2021), *The Office US* was by far the most streamed TV show of 2020, with over 57 billion minutes streamed, which is why the clip shown was a school-appropriate cold open from season 5 of the sitcom. After watching the comedy sketch, students were introduced to the thirty squares test. To ensure understanding, students were given detailed instructions as to how the test should be completed, as well as another overview of the visual example shown before taking the baseline test. Each student received a thirty squares test worksheet and were given 4 minutes to transform as many squares as they could into recognizable objects. When time was up, the test worksheets were collected, and were ready to evaluate and score. The results of the first baseline test of creativity were compared to those of the second test in order to see whether students performed better following the humor stimulus.

Concluding Reflections for the Chapter

Students from both participant groups had fun completing the creativity tests and worked to the best of their creative abilities within the allotted time. The modifications made to the experiment after the first participant group helped students better understand what was expected of them, and the results of the first test were more easily compared to the results of the second test in order to show the effect humor had on student creativity. The results from both participant groups are presented in the next chapter.

CHAPTER 4

RESULTS AND ANALYSIS OF RESULTS

Results from the First Participant Group

The results from the first experiment participant group support the idea that humor can be used as a creative stimulus. After being exposed to humor through the exchange of jokes, students all performed better on the second test of creativity. These test results are presented in Figure 8. However, some students were confused on what exactly they had to do on the test form, which is why more detailed instructions were provided to the second participant group in order to ensure student understanding. Furthermore, the complete the drawing test was replaced with the thirty squares test in the second participant group to increase the validity of the results, as the thirty squares test and thirty circles test are more alike. Overall, the experimental test results of the first participant group successfully prove the effective use of humor as a creative stimulus.

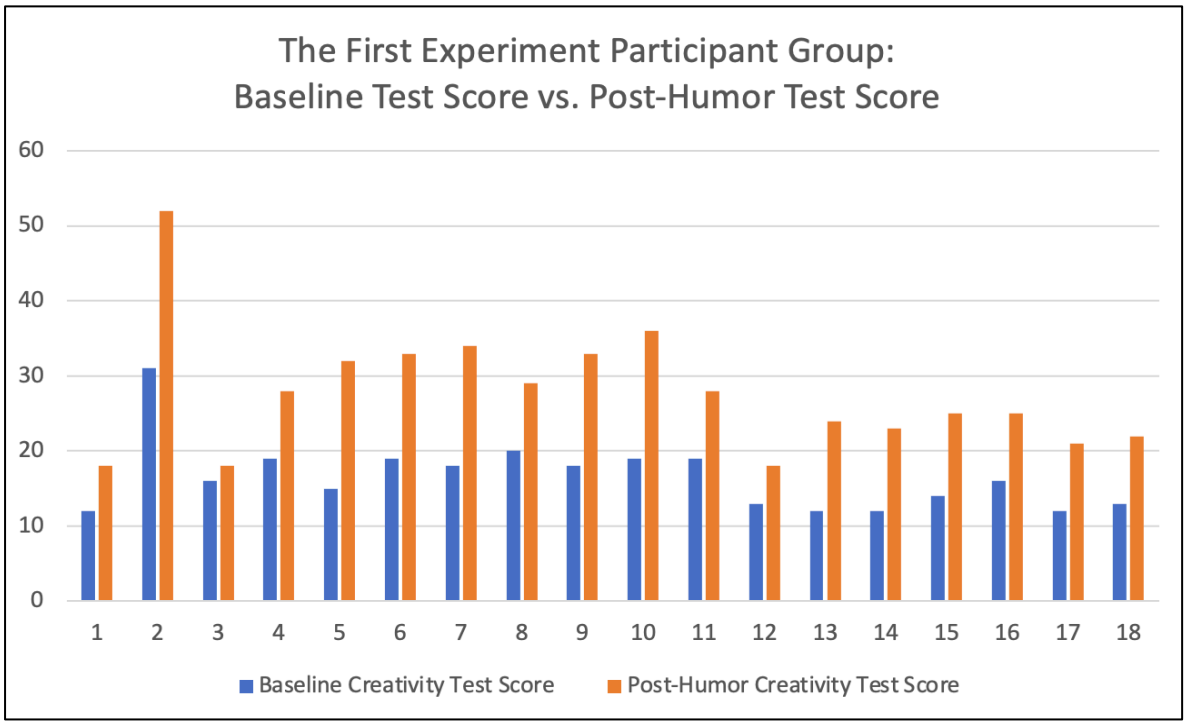
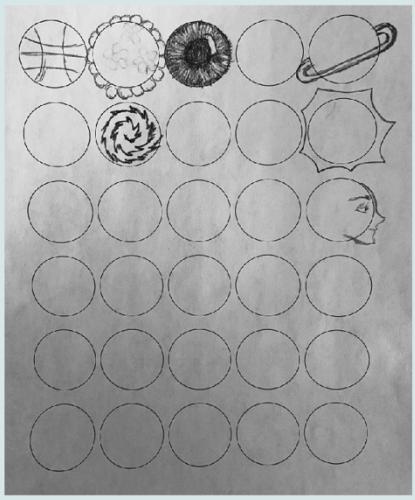


Figure 8. The First Participant Group: Baseline Test Score vs. Post-Humor Test Score

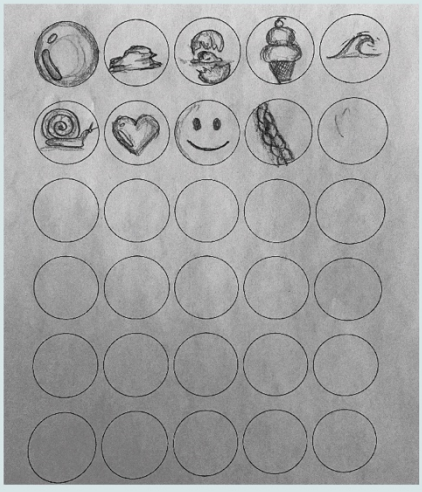
Documentation of Creativity Testing

Documentation of the creativity test results from the first group is presented below:

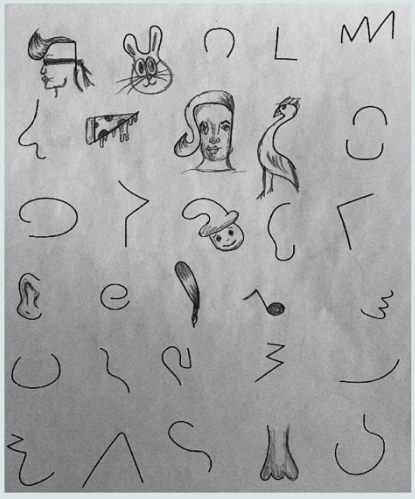


# OF CIRCLES COMPLETED:	7
# OF ORIGINAL DRAWINGS:	5
TOTAL SCORE:	12

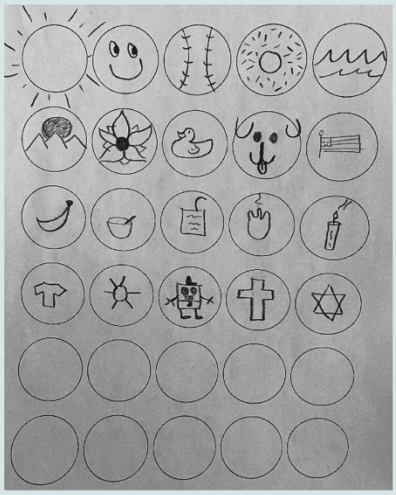
# OF COMPLETED DRAWINGS:	9
# OF ORIGINAL DRAWINGS:	9
TOTAL SCORE:	18



# OF CIRCLES COMPLETED:	9
# OF ORIGINAL DRAWINGS:	7
TOTAL SCORE:	16



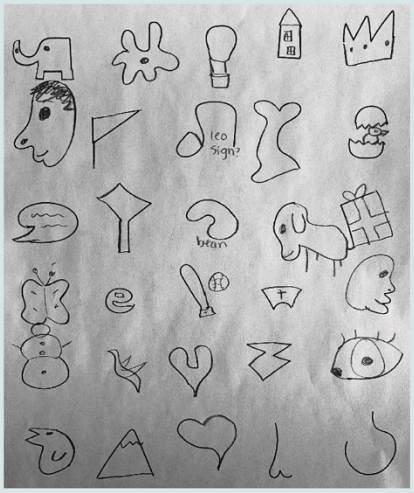
# OF COMPLETED DRAWINGS:	10
# OF ORIGINAL DRAWINGS:	8
TOTAL SCORE:	18



 # OF CIRCLES COMPLETED: 20

 # OF ORIGINAL DRAWINGS: 11

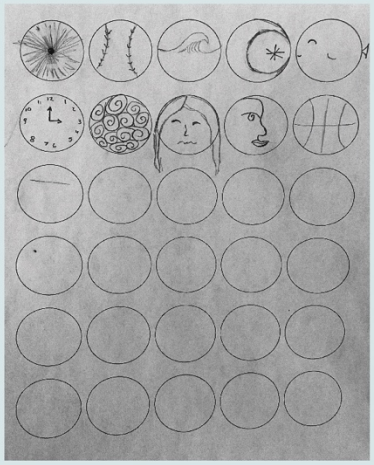
TOTAL SCORE: 31



 # OF COMPLETED DRAWINGS: 28

 # OF ORIGINAL DRAWINGS: 24

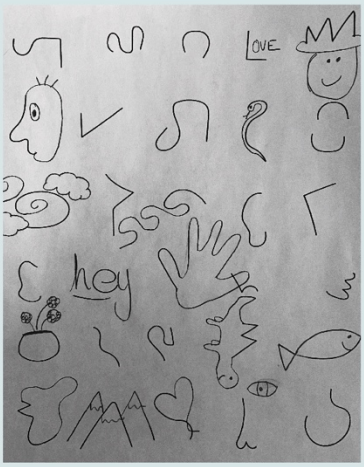
TOTAL SCORE: 52



 # OF CIRCLES COMPLETED: 10

 # OF ORIGINAL DRAWINGS: 9

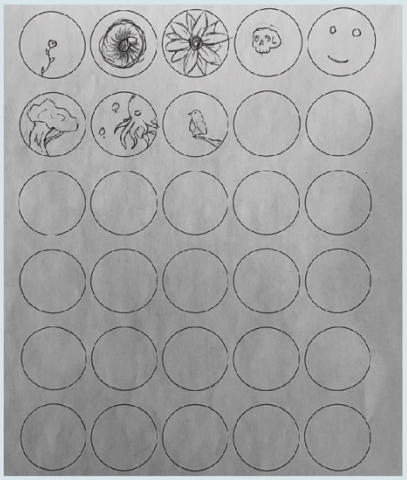
TOTAL SCORE: 19



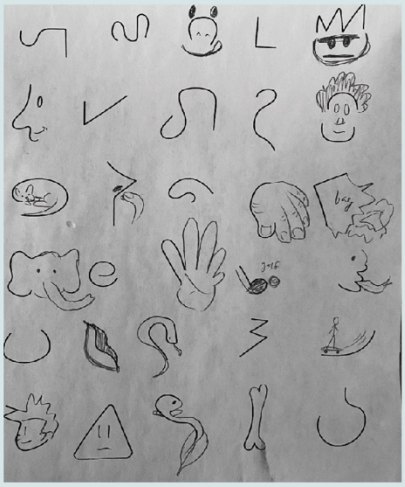
 # OF COMPLETED DRAWINGS: 15

 # OF ORIGINAL DRAWINGS: 13

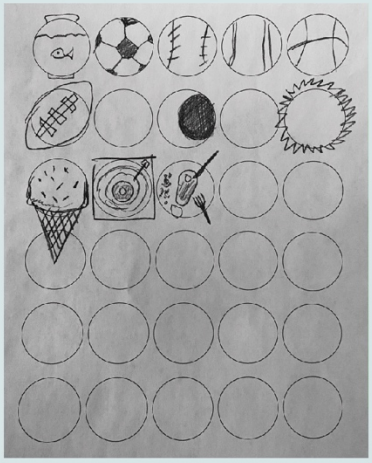
TOTAL SCORE: 28



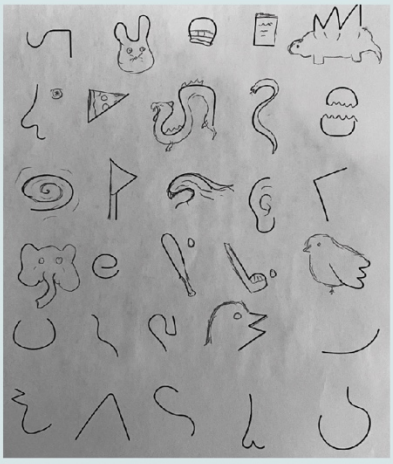
# OF CIRCLES COMPLETED:	8
# OF ORIGINAL DRAWINGS:	7
TOTAL SCORE:	15



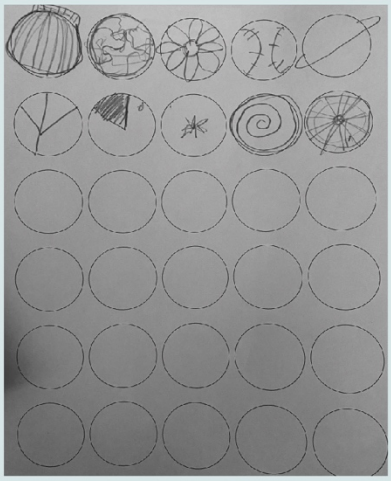
# OF COMPLETED DRAWINGS:	19
# OF ORIGINAL DRAWINGS:	13
TOTAL SCORE:	32



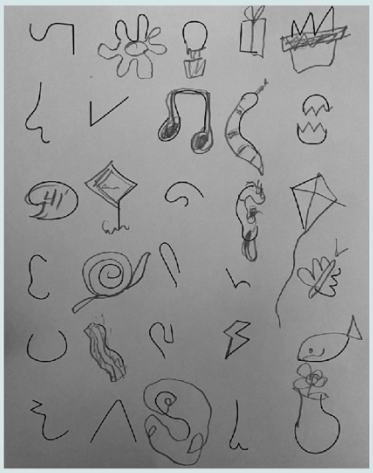
# OF CIRCLES COMPLETED:	13
# OF ORIGINAL DRAWINGS:	6
TOTAL SCORE:	19



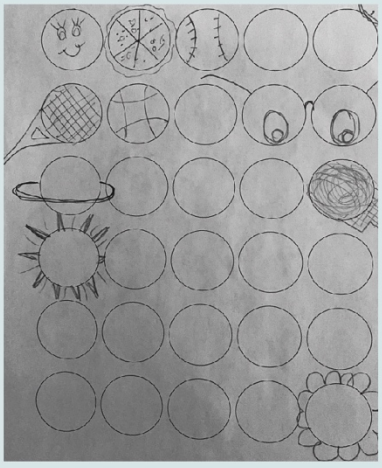
# OF COMPLETED DRAWINGS:	18
# OF ORIGINAL DRAWINGS:	15
TOTAL SCORE:	33



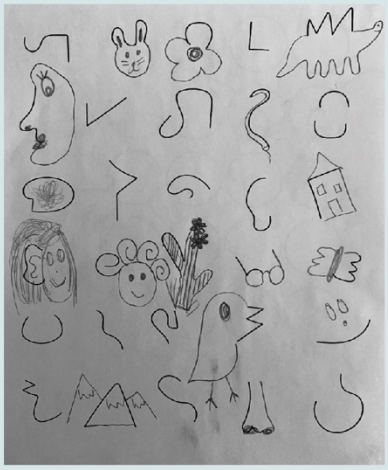
# OF CIRCLES COMPLETED:	10
# OF ORIGINAL DRAWINGS:	8
TOTAL SCORE:	18



# OF COMPLETED DRAWINGS:	18
# OF ORIGINAL DRAWINGS:	16
TOTAL SCORE:	34



# OF CIRCLES COMPLETED:	12
# OF ORIGINAL DRAWINGS:	8
TOTAL SCORE:	20



# OF COMPLETED DRAWINGS:	16
# OF ORIGINAL DRAWINGS:	13
TOTAL SCORE:	29

Results from the Second Participant Group

The results from the second experiment participant group support the idea that humor can be used as a creative stimulus. After being exposed to humor by watching a short comedy sketch, students all performed better on the second test of creativity. These test results are presented in Figure 9. The inclusion of additional, more detailed test instructions and the review of visual examples with students prior to taking the creativity tests aided their understanding and test performance. Moreover, switching to the use of the thirty squares test, in place of the complete the drawing test, made the comparison of test results easier and allowed for the improvement in creative performance on the second test more clearly visible. Overall, the test results of the second participant group successfully prove that humor can be used effectively as a creative stimulus.

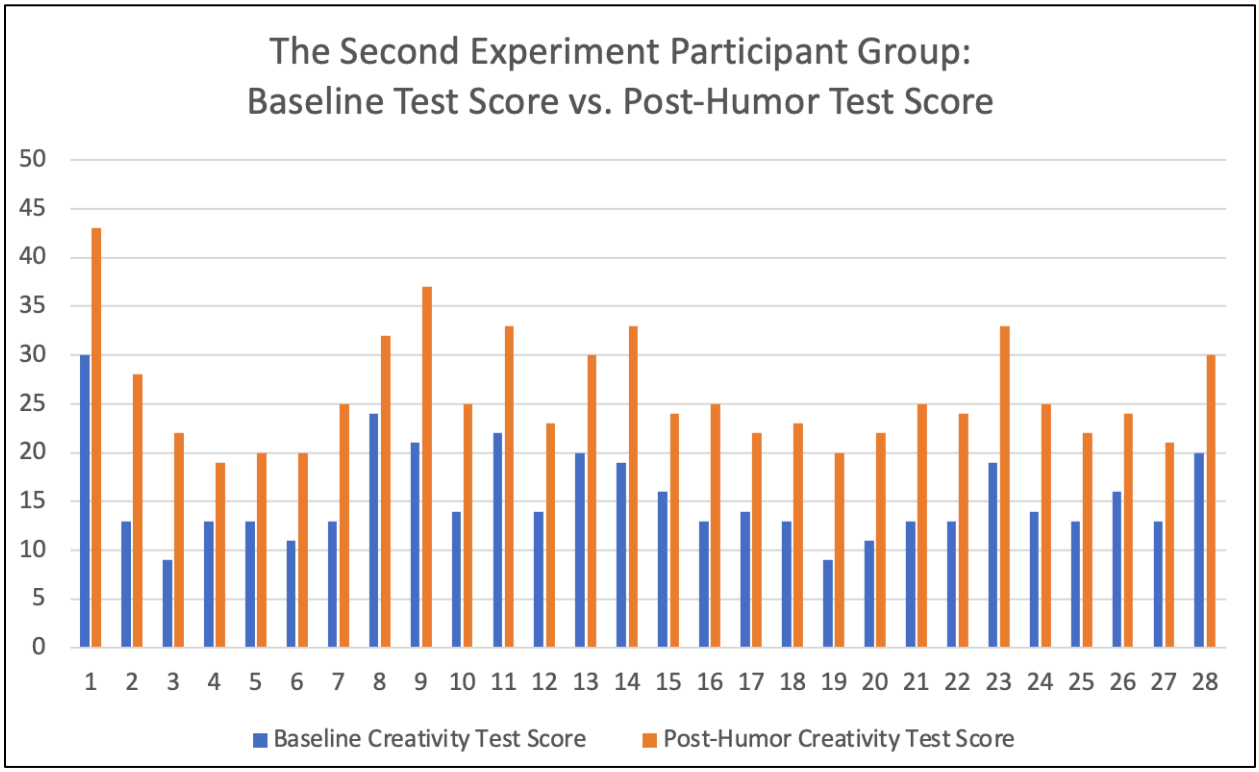
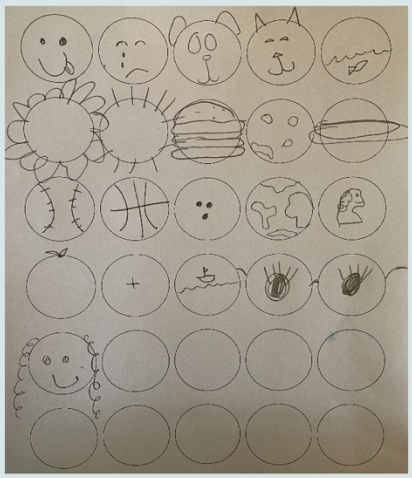


Figure 27. The Second Participant Group: Baseline Test Score vs. Post-Humor Test Score

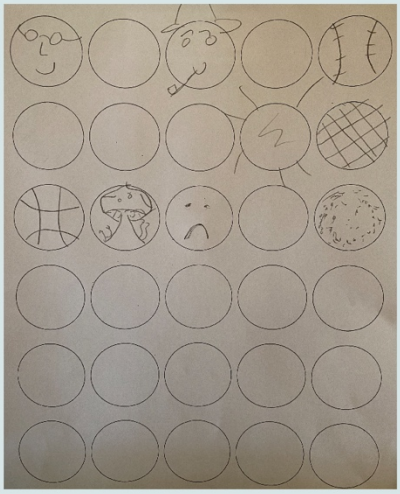
Documentation of Creativity Testing

Documentation of the creativity test results from the second group is presented below:

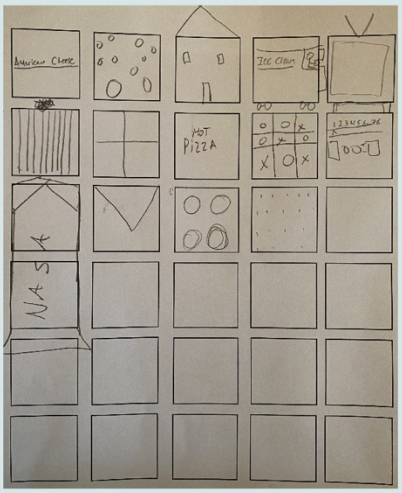


# OF CIRCLES COMPLETED:	21
# OF ORIGINAL DRAWINGS:	9
TOTAL SCORE:	30

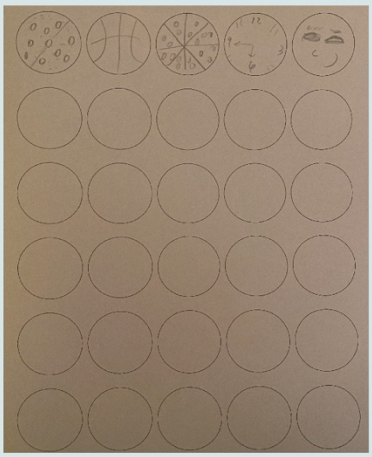
# OF SQUARES COMPLETED:	30
# OF ORIGINAL DRAWINGS:	13
TOTAL SCORE:	43



# OF CIRCLES COMPLETED:	9
# OF ORIGINAL DRAWINGS:	4
TOTAL SCORE:	13



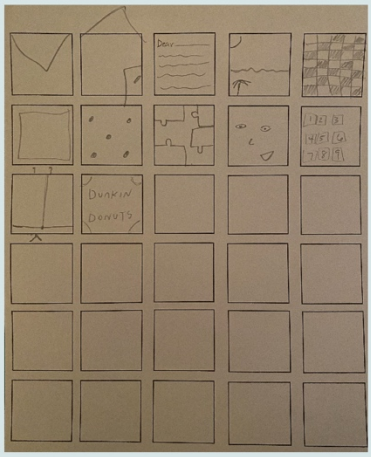
# OF SQUARES COMPLETED:	15
# OF ORIGINAL DRAWINGS:	13
TOTAL SCORE:	28



 # OF CIRCLES COMPLETED: 5

 # OF ORIGINAL DRAWINGS: 4

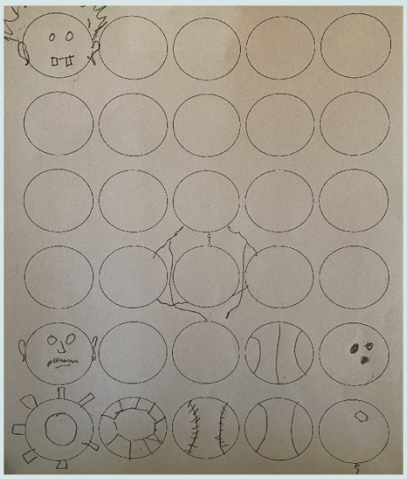
TOTAL SCORE: 9



 # OF SQUARES COMPLETED: 12

 # OF ORIGINAL DRAWINGS: 10

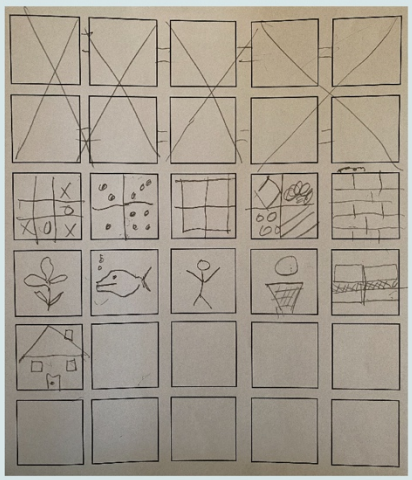
TOTAL SCORE: 22



 # OF CIRCLES COMPLETED: 9

 # OF ORIGINAL DRAWINGS: 4

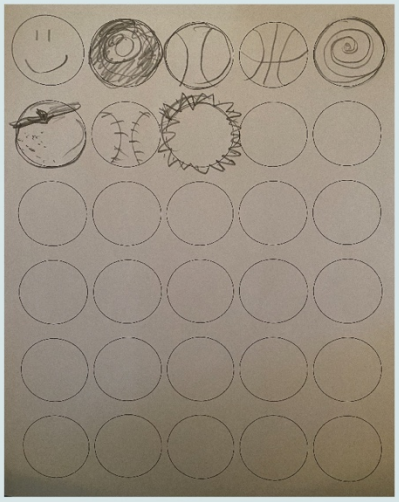
TOTAL SCORE: 13



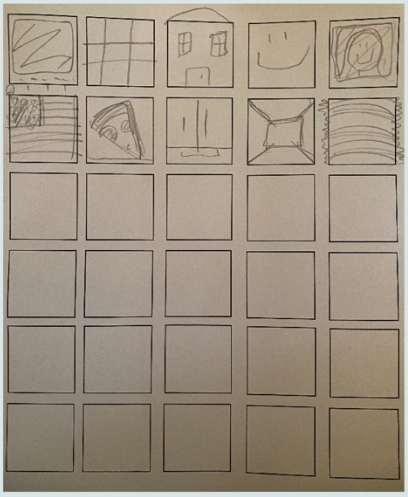
 # OF SQUARES COMPLETED: 11

 # OF ORIGINAL DRAWINGS: 8

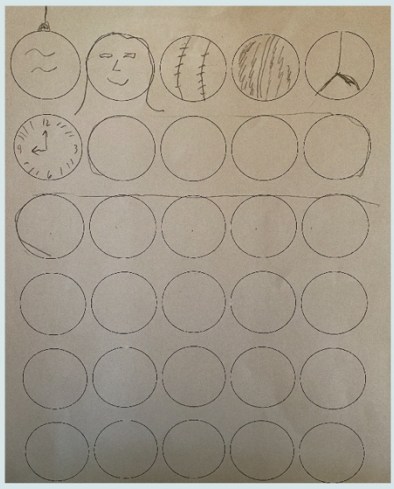
TOTAL SCORE: 19



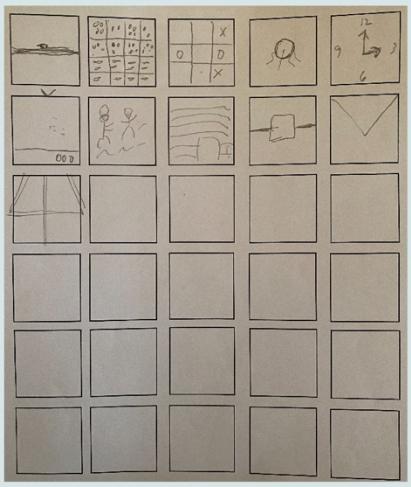
# OF CIRCLES COMPLETED:	8
# OF ORIGINAL DRAWINGS:	5
TOTAL SCORE:	13



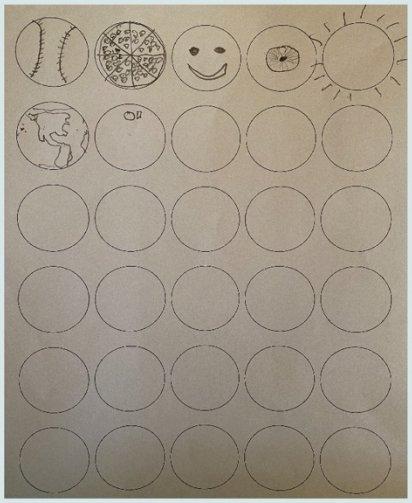
# OF SQUARES COMPLETED:	10
# OF ORIGINAL DRAWINGS:	10
TOTAL SCORE:	20



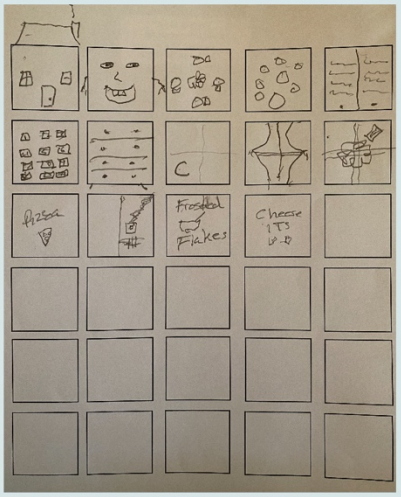
# OF CIRCLES COMPLETED:	6
# OF ORIGINAL DRAWINGS:	5
TOTAL SCORE:	11



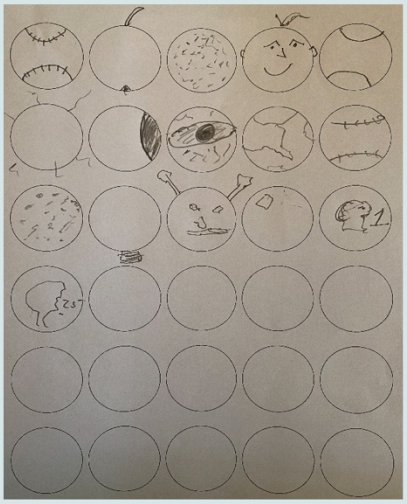
# OF SQUARES COMPLETED:	11
# OF ORIGINAL DRAWINGS:	9
TOTAL SCORE:	20



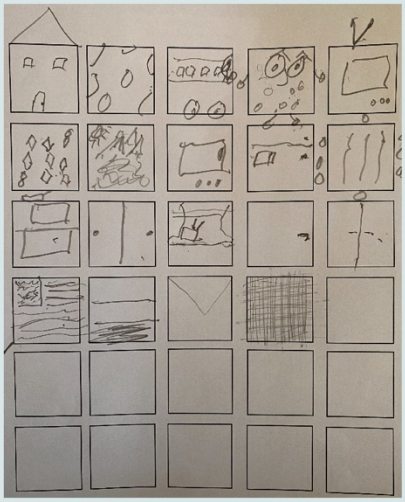
# OF CIRCLES COMPLETED:	7
# OF ORIGINAL DRAWINGS:	6
TOTAL SCORE:	13



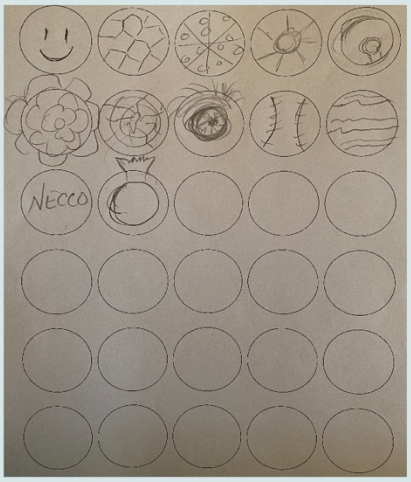
# OF SQUARES COMPLETED:	14
# OF ORIGINAL DRAWINGS:	11
TOTAL SCORE:	25



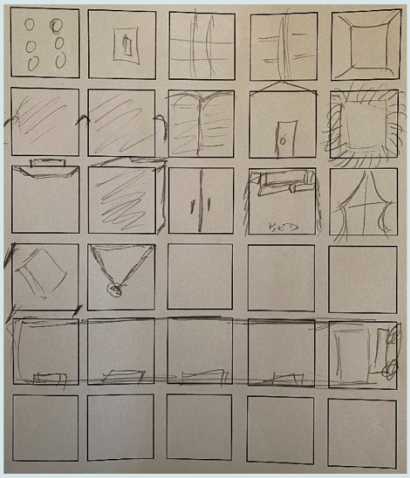
# OF CIRCLES COMPLETED:	16
# OF ORIGINAL DRAWINGS:	8
TOTAL SCORE:	24



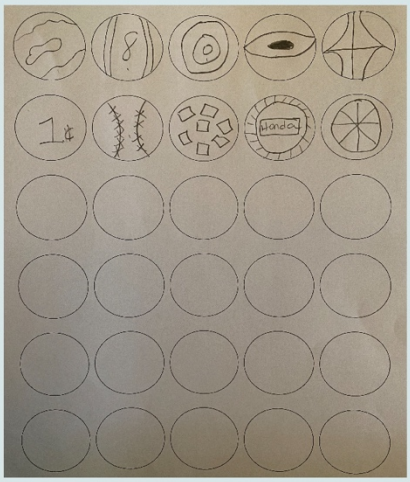
# OF SQUARES COMPLETED:	19
# OF ORIGINAL DRAWINGS:	13
TOTAL SCORE:	32



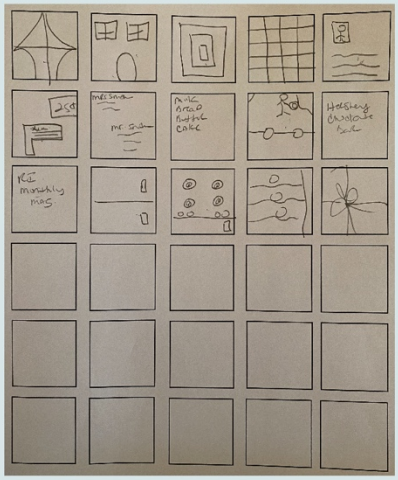
# OF CIRCLES COMPLETED:	12
# OF ORIGINAL DRAWINGS:	9
TOTAL SCORE:	21



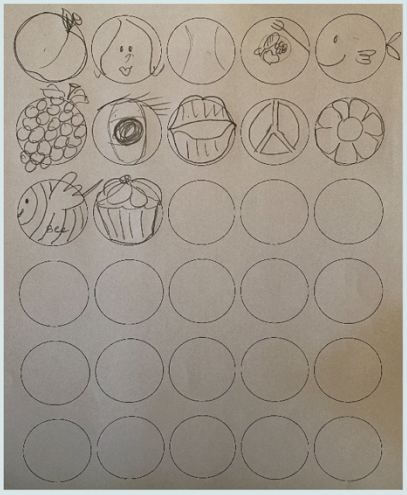
# OF SQUARES COMPLETED:	22
# OF ORIGINAL DRAWINGS:	15
TOTAL SCORE:	37



# OF CIRCLES COMPLETED:	8
# OF ORIGINAL DRAWINGS:	6
TOTAL SCORE:	14



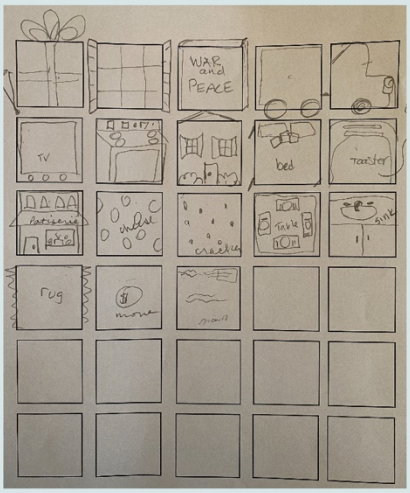
# OF SQUARES COMPLETED:	15
# OF ORIGINAL DRAWINGS:	10
TOTAL SCORE:	25



 # OF CIRCLES COMPLETED: 12

 # OF ORIGINAL DRAWINGS: 10

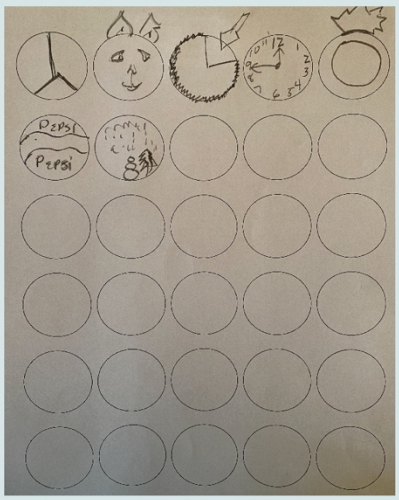
TOTAL SCORE: 22



 # OF SQUARES COMPLETED: 18

 # OF ORIGINAL DRAWINGS: 15

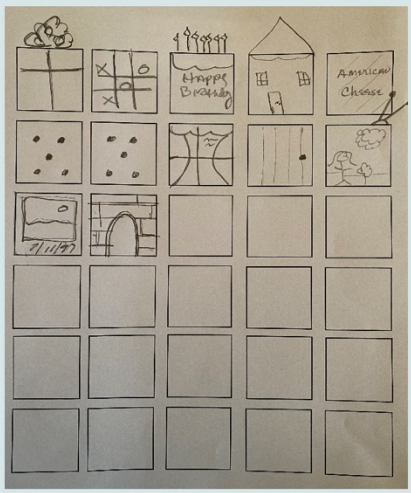
TOTAL SCORE: 33



 # OF CIRCLES COMPLETED: 7

 # OF ORIGINAL DRAWINGS: 7

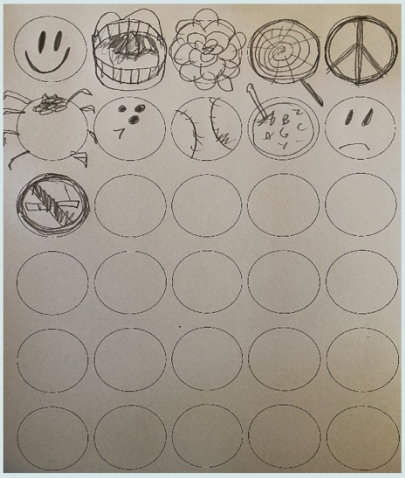
TOTAL SCORE: 14



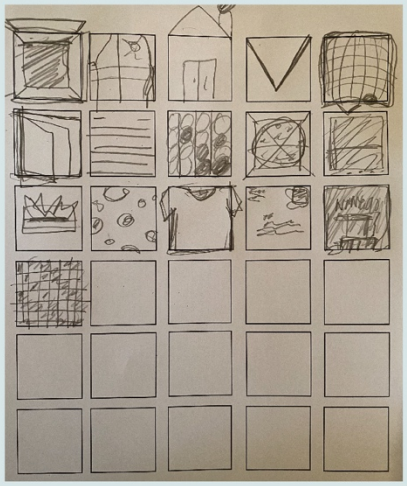
 # OF SQUARES COMPLETED: 12

 # OF ORIGINAL DRAWINGS: 11

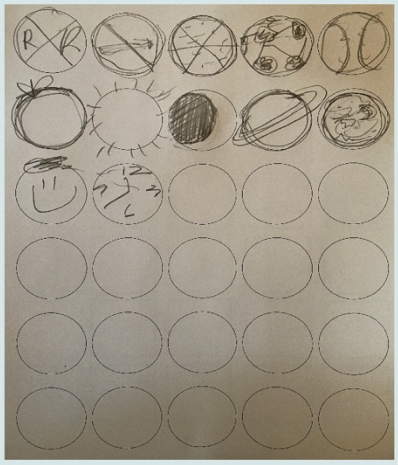
TOTAL SCORE: 23



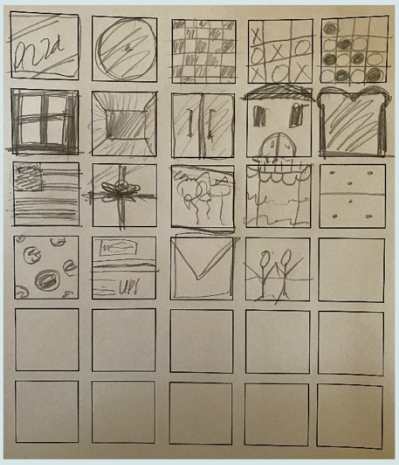
# OF CIRCLES COMPLETED:	11
# OF ORIGINAL DRAWINGS:	9
TOTAL SCORE:	20



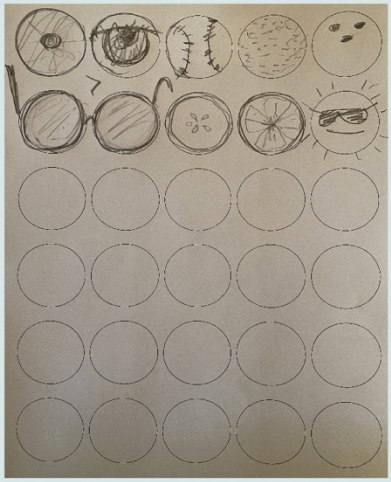
# OF SQUARES COMPLETED:	16
# OF ORIGINAL DRAWINGS:	14
TOTAL SCORE:	30



# OF CIRCLES COMPLETED:	12
# OF ORIGINAL DRAWINGS:	7
TOTAL SCORE:	19



# OF SQUARES COMPLETED:	19
# OF ORIGINAL DRAWINGS:	14
TOTAL SCORE:	33



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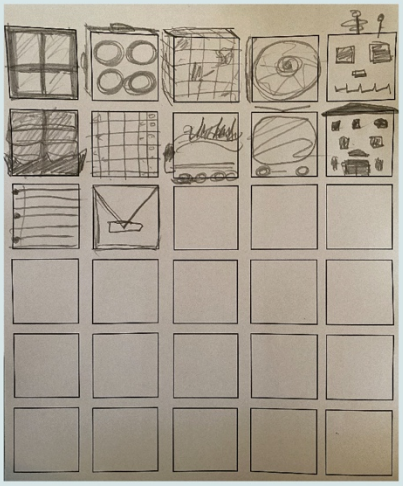
# OF ORIGINAL DRAWINGS:	6
TOTAL SCORE:	16



# OF SQUARES COMPLETED:	12
# OF ORIGINAL DRAWINGS:	12
TOTAL SCORE:	24

Concluding Reflections for the Chapter

The experiment results from the first participant group and from the second participant group both support the idea that humor can be effectively used as creative stimulus in the visual arts. Both groups performed better on the second creativity test, following the humor exposure. In the first participant group, 15 out of the 18 art students scored at least 8 points higher than their baseline test score on the post-humor creativity test. The modifications to the experiment made between the first and the second participant groups supported student understanding and creative performance. In the second participant group, 26 out of the 28 art students scored at least 8 points higher than their baseline test score on the post-humor creativity test. This experiment also worked to prove that different forms of humor exposure, like sharing jokes or watching a comedy film, can be used to stimulate creativity in a similar manner. In summation, the results of this experimental study further support the idea that being exposed to humor prior to a creativity test increases creative potential.

CHAPTER 5

CONCLUDING THOUGHTS

This final concluding chapter of my thesis project presents my summary reflections, discusses future investigations that could be used to expand upon my research, and identifies future initiatives related to the correlation between creativity and humor within the visual arts.

Summary Reflections

As a pre-service art teacher and a visual artist, my biggest take away from this thesis project is that creativity can be fostered within a relaxed, light-hearted, judgement-free environment, and that humor can be used in order to achieve these desired creativity-promoting circumstances. Beghetto and Kaufman (2014) recommend "striking a balance between providing structure and freedom so that students feel supported and encouraged to take the risks necessary for creative expression" (p. 15). In this way, humor can be used within art education in order to help students solve problems, that demand creative solutions, by making it easier to think more broadly and associate ideas more freely (Goleman, 1995). Expanding upon the realm of research concerned with the correlation between creativity and humor (Ziv, 1976; Ziv, 1983; Isen, Daubman, & Nowicki, 1987; Isen, Rosenzweig, & Young, 1991), this study has successfully proved that being exposed to humor prior to taking a creativity test increases creative potential and performance. The completion of this thesis project has uncovered a variety of creativity-enhancing possibilities for my future art classroom, along with several ways humor can be utilized in my future art teaching in order to stimulate student creativity.

Future Investigations

Future investigations regarding the correlation between creativity and humor within the realm of the visual arts could explore different facets of humor and how they can be effectively utilized as a form of creative stimulus. Humor can be manifested as a behavior (humor expression), as a reaction to another person's humor expression (humor appreciation), or as a trait (a sense of humor) (Cooper, 2005). This idea of humor manifestation could lead to further investigations regarding the cognitive, emotional, and social structures through which humor may influence creativity. In this thesis project, humor expression and humor appreciation were utilized in order to find a way to stimulate creativity prior to completing a creative task. Future investigations could also include an exploration of how framing the task itself in a humorous manner may result in a more creative performance than framing the task in a serious manner.

In effort to address the delimitations of this thesis project and the wide scope of both creativity and humor, I have shared a few bulleted points for which I feel the need for further study:

- Throughout this thesis project, I directed my focus primarily on the exploration of humor as a creative stimulus in art education. In the future, I intend to investigate different ways in which humor can be integrated within a visual art curriculum in a manner that promotes student creativity and supports creative artmaking experiences.
- Due to the COVID-19 pandemic, the number of participants in my experimental study was limited. In the future, I would like to expand upon this thesis project with a larger pool of participants in order to increase the validity of my thesis results.
- Research on groups suggests that the presence of just one member who uses humor deliberately and frequently is enough to improve group performance in creative problem-solving tasks (Smith & Goodchilds, 1963). In the future, I plan to further investigate humor as a creative stimulus in group settings, and for a longer duration of time, in order to monitor creative development while deliberately and frequently being exposed to humor.

Future Initiatives

In my future career as an art educator, I look forward to further expanding my library of creativity-promoting artmaking resources and growing my network of teaching partnerships in my community, as well as with the Rhode Island Art Education Association (RIAEA) and the National Art Education Association (NAEA). In my future art teaching, I will make use of humor as a creative stimulus, providing my students with a fun, creativity-enhancing art experience. This will involve providing my students with frequent opportunities to explore, play, and make their own artistic choices, as well as incorporating student interests within my art instruction in order to increase engagement. Allowing my students to have a say in what they create will offer them a greater sense of artistic responsibility and ownership. Furthermore, having knowledge of students as individuals and the influences that impact their development will guide my planning of creative learning experiences that will meet the needs of each student.

The world around us is constantly evolving, as are techniques of teaching, methods of learning, and the students themselves. To be a good teacher, of any subject, you need to be constantly learning and using what you learn in your teaching. Being a lifelong learner helps educators incorporate new tools and strategies into their teaching methods to advance their students' learning and development. As an art educator, I will share my enthusiasm for learning and encourage my students to expand and grow through new experiences, to make mistakes and learn from them, and to become self-motivated to learn. A teacher who is a lifelong learner sets an example for their students because they practice what they teach. My future initiatives as an art educator include the pursuit of knowledge as a lifelong learner and passionately inspiring my students to do the same.

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