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The Problem-Solving Approach Of Health And Education Professionals Who Have Experience In The Arts As An Artist And Personal Experience In Trauma

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THE PROBLEM-SOLVING APPROACH OF HEALTH AND EDUCATION
PROFESSIONALS WHO HAVE EXPERIENCE IN THE ARTS AS AN ARTIST AND
PERSONAL EXPERIENCE IN TRAUMA

by

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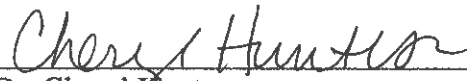
This dissertation, submitted by Chanel Laura Myers, in partial fulfillment of the requirements for the Degree of Doctor of Philosophy from the University of North Dakota, has been read by the Faculty Advisory Committee under whom the work has been done and is hereby approved.

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                                                            Chanel Laura Myers
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ABSTRACT

Clients face many different obstacles within healthcare and education settings. Professionals in health and education fields are in a position to be a problem-solving resource to clients, students, and patients. The subset of professionals being examined are problem-solving professionals, who work with clients/students/patients, within the health and education fields, who self-identify as an artist, and also have experienced trauma with chronic struggling. How do problem-solving professionals in health and education fields who self-identify as an artist and have experienced trauma with chronic struggling approach problem-solving in their profession? This study used qualitative methods and interviewed ten participants. This study found that arts and trauma experiences influence their approach to problem solving. Their problem-solving approach uses methods of seeing, personal qualities, and interpersonal communication skills. These professionals use their exposure to the arts to leverage art as healing to enhance problem solving.

CHAPTER I

INTRODUCTION

There is a group of artistic survivors who are successful problem solvers that use many methods of seeing, personal qualities, and interpersonal communication skills when approaching problems with clients, students, or patients. Clients face many different obstacles within healthcare and education settings. Professionals in health and education fields are in a position to be a problem-solving resource to clients, students, and patients. The researcher has come across many professionals who are in problem-solving positions in health and education, and some of the professionals changed her life. Others became roadblocks because of the narrowed perspective and strict procedure they adhered to. Is there more to problem solving than a four or five step procedure? What was different about the other professionals that catapulted the researcher in her health and education journey? After reviewing many of the problem-solving professionals that had changed the outcome of her journey, she realized they all had two similar life characteristics; they were all artists who had some level of chronic struggling in life, which often times included trauma. Is there an approach, not just a procedure or numbered formula, that impacts the problem-solving experience and/or outcome for clients?

There is no research that analyzes how people who have experienced trauma address problems after the fact, how artists problem solve in their life outside of their art, and no research that analyzes how experience as an artist and experience in trauma

influences a person's approach to problem solving. Most of the research in health and education on problem solving is either procedural steps or about creativity. Research on physicians focuses on more of the mechanical process of diagnosis, but a couple researchers begin to scratch the surface of a wider perspective including creative tools for diagnosis and patient discharge (Ness, 2012; Pettersson, Springett, & Blomqvist, 2009). Research on problem solving in education focuses on instructional problem solving (Baiocco & DeWaters, 1998), and research on business organization leaders focuses research on leadership skills and creativity, etc. (Dutton, Frost, Worline, Lilius, and Kanov, 2002).

Research on trauma shows how there are certain qualities that result from trauma and the problem solving that occurs in trauma (Tedeschi, Park, & Calhoun, 1995). There is also research on the arts that discusses the qualities that come from arts experiences and also the problem solving that occurs (Csikszentmihalyi & Robinson, 1990). These correlations are discussed in this research and also the overlap of the qualities found in both arts and trauma.

This chapter will review a description of the study criteria, a description of the types of problems the problem-solving professional could encounter, a description of how impactful problem-solving professionals can be, and the importance of understanding their way of problem solving. It will also include the purpose statement, the rationale and significance, research questions, and the theoretical framework. For the purpose of this paper, the problem-solving professionals will be referred to as professionals, and the clients/students/patients will be referred to as clients.

Purpose Statement/Topic

This research was conducted to discover how professionals in the health and education field, who self-identify as an artist and have experienced trauma with chronic struggling, approach problem solving. Their experience in the arts and trauma with chronic struggling may transform their problem-solving approach. Professionals in health and education fields are in a position to be a problem-solving resource to clients, students, and patients. This study analyzes the experience, process, methods, and qualities within their problem-solving approaches.

Rationale and Significance

Discovering the approaches and attributes of the methods of problem solving for professionals with experience in trauma and art could inform doctors, educators, and others of the knowledge and the skills needed to develop this way of thinking and seeing when approaching problems to help their client. Is there a way of thinking or an approach resulting from the experience of surviving trauma with chronic struggling and experience in the arts as an artist that could affect the problem-solving approach, and positively impact the results and the affected clients? If this approach is different, this approach to problem solving could be taught to those in a problem-solving profession to help their client through difficult times.

Research Questions

Research Question 1

How do problem-solving professionals in health and education fields who self-identify as an artist and have experienced trauma with chronic struggling approach problem solving in their profession?

Research Question 2

What are the characteristics and qualities of these professionals and the methods used within their problem-solving approach that positively impact their clients/students/patients?

Criteria and Problems

Problems that clients can present to the problem-solving professionals can include many different types that can range from general to complex. These professionals are in a position to help clients problem solve. However, this study is less about the types of problems that the clients present, but how problem-solving professionals approach them. Clients, students, and patients may need help solving problems in order to live life to the fullest. Who can instruct, guide, and act as a resource to them? Health and education professionals such as directors of nursing, professors, life coaches, counselors, educators, school and university student services personnel, public service personnel (such as healthcare, mental health, and disabilities), and many more are in a position to help clients solve problems. Problem-solving professionals have an opportunity to help clients work through, manage, and potentially solve a range of problems from everyday to very recondite problems, and as a result, positively impact clients and change lives.

A client may present a range of problems, from the traumatic death of a family member, abuse, post-traumatic stress disorder, a diagnosis of a learning disability, to struggles with life transition (college, depression, time management, extreme financial stress, and many more). The problem-solving approach researched in this paper is focused on the approach to solve the problems that the clients present.

All of these situations and problems range from general to complex, depending on the specific experience unique to each client. The problems a client could present because of a debilitating chronic illness that affects physical and mental abilities might be different for each profession. A student could become ill with a chronic illness during the semester and this means their personal life can create many different problems in their academic life such as the ability to participate in class, attendance, turning in homework on time, editing papers, ability to focus, managing symptoms that might present during a class period, ability to get to class and be on time, etc. A patient at the doctor's office could have a very difficult set of symptoms to diagnose and once they are diagnosed, it presents an opportunity to go through the process of finding solutions and managing symptoms and life. A client of a life coach who is diagnosed with a chronic illness might need help finding peace with the diagnosis, managing their new life, managing relationships, and understanding their new life view as a result of their illness experience.

Another situation a client could experience that might require help from the problem-solving professional could be a female student and patient who has experienced an abusive relationship, which included rape. The client could face fear, guilt, anxiety, embarrassment, and be ashamed. There are many issues that could come up for this person as a student including the issue of having a male teacher if she was raped by a man, interacting with other male peers in the classroom, participation, being present to learn in the classroom because of the anxiety, attendance, balancing priorities outside of the classroom for homework because of the lack of focus, etc. For a psychologist who is trying to help, the problems that could come up may relate to relationships, closeness to others, panic, ability to express emotions, working through the resulting fears, and how

they feel about themselves because of guilt or shame. This situation could result in other issues to address and work through with more than one problem-solving professional such as a doctor, a mental health practitioner, and a teacher all helping a student through Post Traumatic Stress Disorder (PTSD), pregnancy, etc.

Health and Education Professionals

This study will focus on how health and education professionals, with experience as an artist and personal experience in trauma and chronic struggling, approach problem solving with clients. The professionals being researched have experience in trauma and chronic struggling where complex problems and problem solving can occur and can impact a life. The qualities that can come from their trauma experiences are compared to the qualities found within their problem-solving approach. The professionals included in this study also have experience in both the arts as an artist and aesthetic experiences from observing other artist's work, which can include problem-solving skills and the creation of new perspectives within the arts experiences. Their problem-solving processes are being analyzed to discover how their approach correlates to qualities found within the experiences of the arts and trauma, which both include problem-solving techniques. This study is not only looking at the overall approach to general and complex problems, but analyzing how the qualities and characteristics derived from the arts and trauma might influence or be included within their problem-solving approach.

Counselors, professors, etc. come into contact with clients who are in life transitions and may have the ability to impact the outcome of a person's quality of life, education, and opportunities available. They are all in a professional position to guide, act

as a resource, influence people and change outcomes during a trauma and in the aftermath.

Some professionals choose to only acknowledge what "fits in the box" and "go by the book." Not everyone uses the same innovative life strategies to look beyond what is the current reality and paradigm. It may take a professional who has experience in the arts and or trauma to finally look beyond what is printed in a book, and ignore the idea that we must fit the box and the image society created for us, to overcome obstacles. Finding people who can see deeper and beyond the big picture to help create innovative life strategies could change the results including the ability to live a more fulfilling life physically and intellectually.

Many are confronted with unique life altering situations that require a change in thinking. A rheumatologist (personal communication, January 16, 2015) at Mayo Clinic in Rochester, MN, consciously explained how the arts began to influence his approach to problem solving. He explained how he is able to see past the current situation and paradigm and change his way of thinking or perspective when approaching the patient diagnostic problem presented to him. When asked why and how he was able to see beyond the problem and solve difficult problems when so many doctors and people struggle to do this, he explained that he has had a great deal of experience, and he does not try to fit people in a box. He likened his ability to an experience with paintings in a museum. He explained that if you look up close, you can see some objects and even learn to distinguish some of the techniques used to paint the object. However, he explained that he has the ability to see a painting up-close and then step back to understand the entire painting. He is then able to distinguish the difference between a Monet and a Manet. He

is able to see that there is more than what is right in front of him and make connections that have never been made before. He sees beyond the big picture and the medical problem. This begins the correlation to those people who approach problems differently, who have experience in trauma with chronic struggling and in the arts as an artist. What abilities do the professionals with experience as an artist and personal trauma have that contribute to ways of thinking and experiencing problem solving?

Theoretical Framework

The first section, "Meaning and Reality," reviews the theoretical framework on how experiences influence the construction of reality and meaning. Constructivism is used as a framework to begin to analyze and understand how the problem-solving professional interacts with their world, clients, and problems. The second section, "Deeper Meaning," reviews how constructivism creates a framework to understand how problem-solving professionals see and think from an aesthetic perspective, and also takes into account the problem-solving professional's arts background. Aesthetic qualities from the literature that explain the creation of a person's consciousness and aesthetic experiences affect how the researcher uses them to explore the problem-solving professional's methods and characteristics. This framework is used as the foundation of the lens to understand problem solving and how the researcher aesthetically explored how professionals see problems and the data analysis of results.

Meaning and Reality

This study examines how those who are artists with personal trauma experience construct their problem-solving experiences and analyzes how the participants interact with problem solving. According to Crotty (1998), constructionism is "the view that all

knowledge, and therefore all meaningful reality as such, is contingent upon human practices, being constructed in and out of interaction between human beings and their world, and developed and transmitted within an essentially social context" (p.42). He described how there is no meaning to an object until a person comes in contact and "constructs" the meaning. It is possible that this lens of creation within interaction could be part of the problem-solving process. Problem-solving professionals may take into account their clients and their personal situation as a whole and create a deeper meaningful relationship before solutions are found.

The goal of research within the constructivist viewpoint is to find the meaning that people construct (Wrench, Thomas-Maddox, Richmond, and McCroskey, 2008). What if these problem-solving professionals take time to understand and see their client's world and meaning created and make a very personalized problem-solving plan? This research will delve deep into the problem-solving professional's experiences to understand the meaning of their approach to problem solving.

In this sample, each participant's personal and professional experiences were taken into account, including their methodological experience to approach problem solving and how their skills relate to their personal experiences. Where do the participants make meaning in the problem-solving experience? Greene (2005) discusses her perspective on teaching and learning in the arts from a constructivism point of view. Her first point is that people are looking at how meaning is made and not how to find it. This research is looking for how the artists with personal trauma experience create meaning using their conscious or unconscious knowledge of their aesthetic and trauma knowledge within their problem-solving experiences.

This study explores how problem-solving professionals discover meaning in their interaction between the problem and the clients. The learning that is desired from the constructivism point of view is active, reflective, and interpretive. Greene (2005) reveals how learning is individual but also a group discovery of meaning. In her writing on teaching and learning in the arts, Greene described, "An engagement, a conversation, a quest are required if the student is to make such works objects of her experience, if she is to achieve them as meaningful in some manner that connects with her life" (p. 111). This is important to this study because the meaning being considered also includes the process and conversation between the professional and their client.

Personal experiences are taken into account for the analysis of the characteristics of the participant and their problem-solving method to understand how they see the problem-solving experience. Each person will interpret their idea of an object very differently based on their own experiences (Greene, 2005). Each person perceives and interprets their surroundings very differently, and language does not transfer knowledge to another person (Greene, 2005). This study analyzes how problem-solving professionals with an arts and trauma background perceive and interpret their environment. Greene (2005) explained that the teacher must discover what the artwork means to them first in order to help their students discover meaning. She goes on to describe how new perspectives open up as students explore their understanding of the arts.

Deeper Meaning

The qualities relating to problem solving for professionals who have experience in trauma and arts may be teachable. This research examines how people with trauma and art experience see and create their way of thinking in relation to problem solving. What

meanings are found within their framework of seeing and thinking towards problems? Gadamer (1975) wrote,

> The free play of the faculties of knowledge, on which Kant had based the priori of taste and of genius, he understood anthropologically on the basis of Fichte's theory of instinct, in that the play impulse was to bring about the harmony between the form impulse and the matter impulse. The cultivation of this instinct is the goal of aesthetic education. (p. 73)

This research analyzes problem solving as if it were an art form to be learned with the free play Gadamer (1975) described; the methods and characteristics associated must be identified with ways to help others see the different qualities and cultivate this problem-solving instinct and depth of taste that brings harmony, or positive impact from problem solving, or as Gadamer might say, the peak problem-solving experience. The results of the problem solving, then, could be seen as aesthetic problem solving, or aesthetic solutions, or having an aesthetic impact.

Gadamer's (1975) theories of the aesthetic experience and the aesthetic consciousness branched from the ideas of Bildung and cultivated consciousness. Cultivated consciousness is the idea that people should take in all the ideas around them to create their reality. It is possible that those with trauma and arts in their background could have a stronger ability to take in more of what is around them. Gadamer's (1975) claim is that people should hold back judgment on the art by setting aside the ideals of what is good or bad taste and look at the qualities of the experience. In doing this, we are able to look beyond our five senses, seeing beyond and deeper than the immediate bigger picture or the initial idea of problem solving. This means that we have our sensory

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instinct, but we can use our intellectual freedom. Included within this theory of aesthetic experience is that we must use the ideas of playfulness. According to Gadamer (1975), playfulness is what allows us to go beyond our judgments and taste categorizations and explore meaning. He believes a person should separate the parts of the art and take out the historical or cultural meaning and look at the art as "pure art" to see the qualities of the aesthetic experience. Gadamer's (1975) ideals explain how the aesthetic experience can allow for exploration unlike any other experience.

Constructivism and the arts, "open perspectives, untapped perspectives; it is to look out windows never opened; it is to climb stairs never attempted, and look for keys to unknown doors" (Greene, 2005, p. 130). Greene (2005) stresses how important it is to make meaning through perception and imagination to create an endless amount of new possibilities. A person must learn to look beyond the object and see more than the object (Greene, 2005). Everything that goes into the making of the painted object must be considered.

The aesthetic constructivism perspective is relevant within the literal process of constructing this talent of approaching problems from experience in trauma and a background in art, but also in studying the process and experience. The process of problem solving could include seeing new perspectives just like constructivism and the arts. The meaning is not discovered or created (Crotty, 1998; Glasserfeld, 2002), but constructed with the use of creativity and imagination (Crotty, 1998). There is not one truth; there are many truths to be constructed as we reach into an object that we are interacting with. It is also possible that the problem-solving professionals look for more

than one truth or more than one solution; more truths or solutions found and created while using creativity and imagination seen through trauma and arts lenses.

The skill of seeing more than the object could be a skill used in the problem-solving process to see more than the problem or the solution in front of them. The researcher also used this skill to see past the surface information given in interviews to find the characteristics and qualities that the participants exhibit. There could also be skills developed from their experiences that allow the problem-solving professionals to see different dimensions of experiences associated with their clients allowing their senses to surpass their initial instincts, as Gadamer described instincts. What possibilities open up the problem-solving process for professionals with experience in arts and trauma because of the way they see, interpret their surroundings, and their creation of ideas?

It is possible that artists explore deeper, like an aesthetic experience, within their approach to problem solving allowing them to develop other senses beyond the five, using sensory instinct and a deeper intellectual freedom. This study considers the qualities within the person's trauma and arts background and analyze their developed approach to problems. Their approach is looked at as an art and analyzed with an aesthetic eye, for the aesthetic experience is a place of exploration and discovery, as Gadamer (1975) described. This way of problem solving might need depth of instinct as described by Gadamer. In this analysis, the researcher is looking for any aesthetic qualities within their problem-solving approach that might include aesthetic qualities connected to an artist's experience.

Glasserfeld (2002) explains that the way we interpret our experience creates our reality and we cannot reach beyond that. But can we pair our experience with the use of

our talent and methods of seeing problem solving differently with the experience as an artist and with trauma to allow us to create a greater problem-solving experience? Perhaps this is more so when a person is taught to see more than their initial aesthetic sensory intake?

This study is viewed through the aesthetic qualities of arts experiences to create the researcher's lens. The influence of art could be direct or indirect, but there could be many qualities from the aesthetics within the outcome of this study that provide an additional lens to view problem solving through. We all have different associations, representations, and memories that we attach to the backgrounds in which we perceive. Merleau-Ponty (1962) described this as an outline that is placed upon the background that does not belong. The color in the view becomes more than just the color because it represents something for the person perceiving it. If we can teach people to see more than what is identified as basic color, if we can teach them to see more depth to the environment and qualities within a perspective, then would it not be concluded that they could see more aesthetic qualities and solutions beyond their instincts that result in the change of quality of life? It could be possible that those with experience as an artist and in personal trauma know how to see more than the color in front of them, and thus, see more than the problem they are faced with.

The literature review focuses on the positive qualities that could create a problem-solving approach that emerges from artistic/aesthetic and trauma experiences. This study will examine the constructivist view on how we create meaning and use it to understand the problem-solving experience being examined. Gadamer's (1975) artistic theories of the creation of truth and meaning are also used to help us start to understand how this

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way of problem solving should be examined beneath the surface with the possibility of many contributing aesthetic qualities. The literature includes theories that dissect the arts and trauma experience. Qualities and positive products resulting from both art and trauma are analyzed because this study considers how professionals who are in a position to be a problem-solving resource use their art and trauma experiences to solve problems.

CHAPTER II

LITERATURE REVIEW

The artist and the trauma survivor can both be faced with difficult problems within their experiences. Artists can have problems brainstorming, solving design issues, creating the image that portrays the meaning they are visualizing, or finding the right textures that portray the feeling sought after. Trauma survivors can have problems while working through the trauma and the obstacles in daily living that come with it, working through the aftermath, or creating new parts of their life after the trauma has changed their life in some way. The literature shows that the arts (Csikszentmihalyi & Robinson, 1990) and trauma experiences (Tedeschi, Park, & Calhoun, 1998; Tedeschi & Calhoun, 1995) can dramatically impact a person and change the way they see things as a result.

Artists have an aesthetic solution process to producing artwork (Fields, 2004). The viewing of the art is described as trying to solve a problem or an intellectual problem (Csikszentmihalyi & Robinson, 1990). Artists are very skilled at seeing and interpreting (Csikszentmihalyi & Robinson, 1990). How do artists use their aesthetic skills to approach problems in life?

Art appears in trauma as a way to cope (Richman, 2013), with resilience expressed as the use of imagination. This means that art has a place within trauma and coping, and coping skills are enhanced by trauma (Aldwin & Sutton, 1998). This begins to show the positive effects art and trauma have on each other, which is also shown in the results of this study along with the use of art as healing.

Trauma can push people to grow beyond their original ability to adapt, psychologically function, with increased awareness of life (Tedeschi, Park, & Calhoun, 1998). The literature on trauma includes a long list of benefits and positive-by-products from trauma. Posttraumatic growth refers to the changes that occur after coping (Tedeschi & Calhoun, 1995). The difficult coping experienced during trauma causes growth and allows discovery and enlightenment pushing a person to action and problem solving (Tedeschi & Calhoun, 1995). However, there is more to this problem solving than coping; it is how these skills morph after trauma and chronic struggling and how the person is then doing more than coping, having developed skills to use in a problem-solving position, which can help others problem solve.

The first section of the literature review will discuss arts literature. This section will cover creative problem solving and artistic perspectives, aesthetic experiences, and how problem solving relates to the qualities discussed. Understanding the qualities within an arts experience will help expand the layers and qualities that may influence the problem-solving experience when working with the professionals.

The second section is about trauma. Literature shows how trauma and adversity can change a person and how there are specific qualities that can come from trauma that a person can develop. The traumas can be more than just an event, and growth can happen after the traumatic experience. The literature reviews the definition of trauma, growth from trauma, as well as what induces growth. The third section will discuss the overall qualities found within the arts and trauma literature. Then the overlap of the qualities is discussed.

Art and Aesthetics

The research for the arts focuses on understanding the arts experience and how it can be related to problem solving and ways of thinking. This section also discusses what qualities create the arts experience and the qualities that are created because of the arts experience. The literature topics reviewed includes creative problem solving and artistic thinking, arts experience artistic process, defining aesthetics, and how the qualities of aesthetic experiences relate to problem solving understanding, depth of aesthetics, meaning making, mind and body, and art communication.

Creative Problem Solving and Artistic Thinking

This section reviews creative problem solving**.** The topics discussed are: creative problem solving, strategic thinking, reflection, and design thinking. There are many forms of problem solving and ways to approach thinking strategically within each profession or leadership role. Research about problem solving in the different professions focuses on basic processes and does not take into account the qualities of the personal experiences that might influence the way the problem-solving professionals involved see and think. The problem-solving techniques focus on creativity and skills learned from their profession, but none of it takes into account life experiences or the qualities of people such as those found in artists and people who have experienced trauma with chronic struggling. Research and views on problem solving in health, education and business tend to be narrow. Ness (2012) created a training program for epidemiology with an innovative toolbox to teach creativity and innovation, and begins to discuss ideas that veer from very procedural methods. Ness (2012) discusses innovative tools for diagnosis such as asking the right question, observation, analogy, deduction and

induction, etc. Competence and confidence, patient participation, and time to create a solution are three areas discussed as ways to overcome problems in patient discharge (Pettersson, Springett, & Blomqvist, 2009). However, is there more than these creative diagnostic tools to problem solving in health? What about managing problems or how their experience plays a role?

High-level problem-solving skills for teachers includes assessment, identification, planning and implementation, and evaluation (Baiocco & DeWaters, 1998). Dutton, Frost, Worline, Lilius, and Kanov (2002) explains that leaders in a business organization can help begin the healing after crisis by taking action that demonstrates compassion triggering a response from everyone in an organization lessening suffering, enabling recovery, and maintaining performance. Compassion is beyond empathy because it is considered an action that impacts a public and inspires people to take action (Dutton et al., 2002). Just like this leadership role needing compassion, which is beyond empathy, this research looks at what is beyond creative problem solving and basic processes professionals use to do their job when their clients encounter problems, which can include life changing trauma and chronic struggling.

There is no research that specifically focuses on analyzing a person's entire approach to problem solving after they have experienced trauma with chronic struggling that has dramatically impacted the way they see and function, nor is there research on how artists with their aesthetic experiences approach problems in their life. The trauma and artistic experiences could impact a professional's problem-solving approach and the way they use those skills in a problem-solving profession to help others solve problems.

The approach used from this subset of people could have conscious and unconscious influences that correlate to qualities found in the arts and trauma.

Creative professions within the arts could have methods and skills used to contribute to problem solving. The qualities a maestro uses to lead and approach problems to create beautiful music could include aesthetic techniques to be applied to more than just the symphony or business organization, but apply to other fields and professional positions such as the health and education fields. The maestro of an orchestra is like a leader within a large business organization. Nierenberg (2009) explained that the maestro must be a leader to direct the team by having a vision in their mind the entire time. All the non-verbal and verbal expressions connect back to the vision that was created with the imagination. Musicians create a current and the maestro creates the image that inspired them to create the current. There are no instructions in a score of music telling a maestro how to do this, but a maestro can use their imagination to allow music to feel as though the century old music is brand new. The maestro must "change the very meaning of who the singers were and what they were doing" (p. 116). The leader in a business must imagine and create a vision for the future that allows for discovery and new awareness (Nierenberg, 2009). There could be many problems along this journey to creating the change and vision within imaginations between the maestro and the musicians. Thus, the skills of imagining, creating a vision, non-verbal and verbal expressions, and allowing discovery are examples of skills outside or above the basic creative problem-solving process that Nierenberg (2009) has just identified and could also be skills used by problem-solving professionals.

Creative problem solving is a common topic discussed in the literature when researching problem solving. Michalco (2011) analyzed creative thinking and explains that people who are educated are taught to compartmentalize and label each subject area with separate boxes and rooms. The more specialized a person is in the subject, limits their imagination. Michalco wrote (2011), "I sometimes think this is why the person who knows more, sees less, and the person who knows less, sees more" (p. 9). The qualities of creative thinkers include the ability to embrace dissonance, inconsistency, ambiguity, and objects that are out of place. Michalco (2011) explained that, "Thinking in terms of essences and principles frees your imagination from the constraints of words labels and categories" (p. 49). This study is not just looking for the essences of the problem being worked on, but the essences of the process, the experience as a whole, and the person as a whole to see how problem-solving professionals see the problem-solving experience.

This study includes those with formal education within the fields of health and education, but also specific life experiences. Is it possible that the life experiences from trauma and the arts free up these compartmentalized boxes? Michalco discusses and allows the professionals to see more to catapult and build off of the creative thinking qualities with problem-solving qualities that may come from trauma and artistic experiences. Many of the techniques include bringing two obscure topics together to create a new idea or connection (Michalco, 2011). However, this study is looking deeper at the thinking processes, qualities, philosophy, personal experiences, the person as a whole to see beyond the problem-solving process to do more than creative problem solving. It is clear from Michalco's (2011) description that creative thinking has very specific methods involved and perspectives used to achieve creative results. Artists and

those who have experienced trauma with chronic struggling may have a different

perspective in the way they interpret or perceive problems that could have the potential to

create life-changing results.

Much of the literature on creative leaders focuses on how the creative leaders help

followers generate ideas, and the leaders are seen as a supporter of creativity (Mumford,

Connelly, Gaddis, 2003). This dynamic is important to explore because of the interaction

between the problem-solving professional and their client. Mumford, Connelly, and

Gaddis (2003) have a different paradigm than most and believe that the leaders are part of

the creative thought process, not just motivating the followers. Creative thinking from

leaders focuses on the use of the ideas for practical purposes of an organization. A

leader's creative thoughts are external and focus on the followers' ideas. Leaders need to

focus on more than being open and do more than evaluate other's ideas. Leaders evaluate

other's ideas and should use this as a catalyst to creating creative ideas. The more the

followers have creative ideas that are also shared with the leader, the more creative

thoughts the leader will have. Feedback and evaluations of ideas from the followers can

be used to create ideas within the leader (Mumford, Connelly, & Gaddis, 2003).

However, this does not explain much about the creative process other than it is

synergistic.

Strategic thinking. Strategic thinking skills could correlate to skills used by the

professionals, but much of the literature on solving problems in the business sector only

focuses on this way of thinking in a very structured form. Leaders in large organizations

have strategic thinking skills and perspectives that can impact their results when

confronting problems. Kanter (2011) discussed the explosion at the BP oil platform in the

Gulf of Mexico in relation to seeing the bigger picture. It was her analysis that the CEO of BP kept looking at the smaller details instead of the bigger picture, resulting in the lives that were lost. "The lens through which leaders view the world can help or hinder their ability to make good strategic decisions, especially during crises," according to Kanter (2011, p. 112). She relates the process of seeing the details and the bigger picture to digital devices that zoom in and out to see different perspectives of an object and relates this back to leadership. A leader must zoom in and out to see both perspectives. A leader cannot choose just one position. Kanter (2011) gives more examples of leadership with zoomed in perspectives that result in behaviors that confine people in their roles and restrict communication. This discussion by Kanter (2011) summarizes the idea that leaders need to see the big picture and the details. Is there a skill named for being able to act on both of these techniques? And, what are the skills that can result after you are able to zoom in and out? There could be another set of skills that allow a person to see even higher than just the bigger picture, or beyond the canvas. Kanter (2011) discusses that this zooming in and out allows a leader to connect all of the ideas resulting in a different solution. Zooming in is more personal, but zooming out can result in more self-reflection and vision. Zooming out allows a person to see patterns. Kanter wrote, "That's why broad visions need to be matched by small wins that demonstrate feasibility" (114). The importance of both zooming in and out to achieve a level of strategic thinking are explained above, but it is now even more important to understand the qualities and techniques needed to develop and achieve both skills and how to use them to work in interpersonal situations and problem solving. What way of thinking is required? The way a person sees and thinks is clearly important to how a person sees the problems and the

way they approach them. Artists with personal trauma experience may have a different skill set allowing them to see the big picture, zoom in, and or see beyond what is already there.

Marguc, Förster, and Van Kleef (2011) explain that obstacles invite people to see from a global perspective. Marguc et al. (2011) wrote that there is a, "…Gestalt-like processing style that allows them to look at the "big picture" and conceptually integrate seemingly unrelated pieces of information" (p.883). This study had participants solving different problems with distractions to overcome, and then they were studied while doing unrelated tasks to test the carryover of abilities. This perception change was found to also be influential in the ability to see globally when confronting unrelated situations. The tasks performed by participants were mazes or word anagrams. What about serious life obstacles and problem solving that involves real issues that are more than just numbers or words? Their discussion addresses the fact that it is possible when more serious events are studied, it could result in narrowing perception. What is it about a person that would see wider instead of narrow in the midst of these situations? Additionally, what is in their experience and methods that allows this phenomenon to happen and result in life changing ideas and solutions?

Strategic perspective is also considered the ability to see the big picture (Keelin & Arnold, 2002). Keelin and Arnold (2002) wrote, "A person who has strategic perspective creates clarity out of complex and seemingly disconnected details" (p. 39). Strategic perspective is listed to include, "broad view with zoom in, abstract with powerful engagement of the imagination, abstraction illustrated with concrete examples, important, non-intuitive, framework-breaking ideas, embraces alternatives and uncertainties, and

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aims to achieve an over-arching goal." In this context, Keelin and Arnold have a similar view to Kanter (2011) in that it takes both the details and the broad view to complete the bigger picture moving from general to specific. Keelin and Arnold (2002) claim that the ability to have a strategic perspective is partly innate, but can be a skill that is worked on and developed. Intense learning environments encourage strategic perspective. These intense learning environments could include trauma. If strategic thinking helps connect the big and small picture, what allows a person to see beyond and create new ways of thinking outside of the rules that our thinking works in currently? This takes the skills applied and learned from being an artist with personal trauma experience. Strategic thinking could be a basic skill that those who are artists with personal trauma experience develop or contain similar qualities that relates to a skill developed.

The five steps to strategic thinking are: 1. "Get Into the Game" (p.40); stay engaged, 2. "Embrace Confusion and Contradictory Thoughts" (p.41); confront contradictory thoughts to encourage learning, 3. "Cultivate Calmness of Mind" (p.41); reflecting on thoughts even during crisis, 4. "Manage Your Thoughts" (p.42); evaluate which ideas to keep and let go of, and 5. "Cultivate Clarity of Expression" (p.42); use words carefully, create the message directed toward your audience, and prepare thoughts ahead of time (Keelin & Arnold, 2002). The five steps Keelin and Arnold (2002) use to describe how to obtain strategic thinking sound more like preparatory ideas. These steps are a great start to understanding how a person might begin to think strategically, but how can this way of seeing go beyond basic problem solving? This article has great ideas, but there is no mention of a study to back up the analysis and list of traits for this type of management style and ability.

Strategic management techniques promote creativity in addition to flexible and participatory thinking within problem solving (Goldsmith, 1996). The three points that are part of strategy include understanding the organization, being aware of the environment or external factors, and fitting the external and internal variables together while keeping track of how they can affect each other. Too much planning and looking ahead can take innovation and creativity out of the strategy. These skills could be part of the qualities and skills used by artists and trauma survivors to approach problems within a personal setting. However, Goldsmith does not address a deeper understanding of the way of thinking being described. Each of these skills discussed needs to be dissected more to understand how they can be used to seeing deeper than the surface and discover more relating to the solutions found in problem solving.

Strategic management has five tools: "Mission and goals" (p.1422), which includes purpose and vision; "Analysis" (p. 1422), which includes using external and internal resources; "Formulation" (p. 1422), which includes creating strategy with internal resources in mind; "Implementation" (p. 1422), which includes carrying out the plan; and "Monitoring" (p. 1422), which includes evaluating and making changes. Goldsmith (1996) argues that taking managers away from routines is important, and this is where strategic management can help shift the focus. Although, a manager can over focus even on the tasks involved in strategic management to take away from the broad view intended. Goldsmith makes strategic management sound almost robotic in nature, and although creating formulas are a great start, seeing beyond the initial problem could require a more intuitive and abstract approach. Is it possible that the arts and trauma helps develop this ability of vision and strategy? As an artist, you are constantly taking yourself

out of routines to make different art, and in trauma, you are also taken out of a routine. This could develop the shift in focus Goldsmith discusses.

All of the strategic perspectives and strategy techniques are looked at from a management type of position and perspective. What happens when you look at it from a communication and interpersonal perspective or a more artistic perspective? The problems being referred to are not presented as personal in nature or affecting the quality of life of others. The articles are only looking at the process from a broad view and not looking at how these problem-solving situations are more than just for business. Essentially, the articles are zoomed out to a broad view and not zooming in. There is more to see, such as the way an artist and a trauma survivor sees and applying that way of thinking; seeing deeper and bigger than the current picture requires different skills.

Reflection and design thinking. Abstract, design, reflective, inductive, and deductive thinking are all ways of thinking described in the literature that are all described in artistic terms. There are different qualities discussed that encourage these ways of thinking or what these ways of thinking encourage as a result of employing the skill. Abstract and high-level ways of thinking are heightened by a positive mood resulting in the ability to see a bigger picture (Labroo & Patrick, 2008). The people who have the ability to do this work harder and define future goals that are abstract and more attainable. A positive mood allows for abstract construal thinking because a person can psychologically distance himself or herself from the situation (Labroo & Patrick, 2008). This means a positive mood is a bridge that brings the qualities of the people of have developed this skill to see the bigger picture and their methods to take place. What other

qualities are required to see aesthetically, and essentially, what is the method to their

madness?

Design thinking is described as innovative intelligence in addition to emotion,

integral and experiential intelligence (Clark & Smith, 2008). Design thinking encourages

innovation and is an environment of thought that breeds freedom and exploration to

address problems. It is argued that design thinking should become a bigger part of other

areas such as business. Clark and Smith (2008) describe three types of intelligences

required for design thinking used in the business environment:

> Emotional intelligence is the ability to understand and embrace in the context of
>
> culture that which moves us to act and which creates attachment, commitment,
>
> and conviction. Integral intelligence is the ability to bring together diverse
>
> customer needs and business ecosystem capabilities into complete systems that
>
> deliver value and reflect the values of the birth organization. Experiential
>
> intelligence is the ability to understand and activate all five human senses to make
>
> innovation tangible, known, and vibrant. (p.9)

Is it possible that those who are artists with personal trauma experience use more

intelligences including emotional, integral, and experiential? Or are there other

intelligences to be identified as part of their process?

Design thinking encourages many different ways of thinking and taps into

different parts of the brain (Clark & Smith, 2008). When design thinking is used, there

are specific ways to activate each intelligence. Emotional intelligence is about bringing

both the left and the right brain together and using the head, the heart, and the gut.

However, how does one do this? Part of this is described as seeing the emotion involved

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in situations (Clark & Smith, 2008). Emotion is key because it leads to action. Activating integral intelligence is seeing the big picture, or the ability to zoom in and out, seeing details and finding meaning. This could be key to many situations and if design thinking is linked to emotion, then emotion must be part of opening up different ways of thinking. Activating experiential intelligence is described as the focus on enhancing the experience and interaction. Tapping into each of these intelligences or being conscious of these could be key to understanding and identifying the artists with personal trauma experience and their problem-solving approach. Seeing emotion, seeing the big picture and the details, seeing meaning, and seeing the depth to experience and interaction through all the senses are all skills described within these three intelligences and are all part of what could be used in the problem-solving process that artists with personal trauma use. These are abilities to see past what is in front of a person or what is unspoken.

The details of the method of design thinking are not discussed in the article by Clark and Smith (2008). They did discuss using design thinking to improve employee's experiences and journey within companies such as IBM. How does this change experiences when design aspects are applied to problem solving on a personal level? IBM is noted to explore a problem with this method and include the exploration to have a "deep understanding" between the corporate representative and the client about wants and needs that are verbalized and not verbalized. This is interesting because this takes a skill to see and deeply understand what is not verbalized. However, there was no real study done on this concept.

To discover a new way to approach problem solving, we must first explore deeper ways of thinking, perspective, and artistic problem solving; deeper than the methods

employed for creative thinking. Dewey (1910) begins by describing a different way of thinking that can change the way a person solves problems as a leader or teacher in the educational environment. This approach requires a great deal of reflection. He described that if we take the first suggestion to solve a problem then this does not require critical thinking and a small amount of reflection. Dewey (1910) wrote,

> To turn the thing over in mind, to reflect, means to hunt for additional evidence, for new data, that will develop the suggestion, and will either, as we say, bear it out or else make obvious its absurdity and irrelevance. (p. 13)

Do many people take the first suggestion and not question? Are those people who have experience in trauma and the arts more apt to questioning?

Reflective thinking means not taking an idea at face value and sitting in the difficult feeling of uneasiness (Dewey, 1910). Reflective thinking requires a person to suspend judgment to question and this can be painful. Are people who have experienced trauma and the arts more likely to accept this pain? A person must challenge the first suggestion. The ability to use this way of thinking takes training of the mind. A person must be curious about and experiment with the physical environment, the people around them, the intellectual problems observed; curious about and influenced by social stimuli, for a fuller experience experiment. If a much greater search was conducted with many conclusions considered, there is a much fuller meaning found rather than a conclusion that is found after a few options are considered. Intrinsic quality of thought is also of consideration. It is possible that reflective thinking is a quality found within the artist and trauma survivors' approach to problem solving. There must be more to be found about their form of reflective thinking.

One person is superficial in their thinking while the other is rich and profound going far beneath the surface. This form of thought is not taught. How do the people who are artists with personal trauma experience go beneath the surface of the problems, and can their method be taught? Dewey (1910) wrote,

> The depth to which a sense of the problem, of the difficulty, sinks, determines the quality of the thinking that follows; and any habit of teaching which encourages the pupil for the sake of a successful recitation or of display of memorized information to glide over the thin ice of genuine problems reverses the true method of mind training. (p. 38)

He is describing deeper planes of thinking. The professionals who are artists with trauma experience may have a deeper sense of the problem because of the sensory instincts of the mind developed from the skills and qualities developed from experience as an artist and in personal trauma. The aesthetics within artistry and trauma could have trained the mind to think on a deeper plane.

Dewey's (1910) concern is the educational environment and activities to develop this skill, but what if another environment to develop this ability to think beyond to a deeper plane is found somewhere in the arts and trauma? Or at least it may be found in one of the deeper planes? Wisdom is what comes from training of the mind. An educational environment or person with one correct answer that is thought of as the highest answer, goes against the training of the mind. Dewey (1910) described a logically trained mind that does not need rules because each situation should be handled as it comes forth because each context is different. A mind must be "sensitive to problems and

skilled in methods of attack and solution" (Dewey, 1910, p.78). Those who are artists with experience in personal trauma may not see one answer; they see more.

It is described that inductive thinking is used by guiding deductive skills to understand foundational principles to know the laws and rules to be able to see the obscure and different from the inductive perspective. Intuitive judgments using alertness, curiosity, and flexibility are crucial. Intuitive judgment is also known as discernment. Concrete thinking, practical concerns or to find an end or solution as well as abstract thinking, encourages more thinking with no end. "A person who has at command both types of thinking is of a higher order than he who possesses only one," according to Dewey (1910, p.142). These skills require depth of thinking and experience. It is unclear where these skills and depth are originally developed. It is possible the artists with personal trauma experience have this intuitive judgment called discernment that encourages their thinking without end. To what level each person has this intuitive judgment allowing discernment is unclear. Each person has a different level of artist experience and trauma experience, which could make this skill vary also varying their problem-solving ability. All of these different artistic ways of thinking and correlations to the business world's creative problem solving, could relate to the professionals' problem-solving experience.

Aesthetic Experiences

This section reviews the artistic process, defining aesthetic experiences, the depth of aesthetics, how meaning is made and the type of person and how their experiences influence their aesthetic experience and meaning making process, how aesthetics involves the entire mind and body, and how art involves communication. The first section

breaks down how artists see art and their surroundings and how it relates to problem solving.

Artistic process. There are different qualities associated with how artists see their art while creating it (Berger, 1972) and different problems that must be worked through during the artistic process (Fields, 2007). Understanding the artist's experience and qualities that create an experience with art will help us understand qualities that could be present in the problem-solving experience for those with experience as an artist and personal trauma. There may be qualities from both trauma and the arts that are present within a person's approach to problems that can be identified through an aesthetic lens. The way we perceive an image is affected by our personal way of seeing (Berger, 1972). Berger (1972, p.8) stated, "The way we see things is affected by what we know or what we believe." Painting requires the skill of seeing the big picture. However, how big? Is the "seeing the big picture" the size of the canvas? Or do some artists see beyond the canvas? Additionally, how does this relate to the way artists see ideas and problems outside of the art?

There is an aesthetic solution process to producing artwork that Fields (2004) studied. An intuitive recognition process and creative problem-solving allows people to recognize "off-the-wall solutions" (Fields, 2004). Intuitive ideas are created when problems are confronted during the process of brainstorming what to create within the artwork process. The barrier of trying to come up with ideas of what to create for a collage being made for the Fields (2004) study by the participants was over when participants focused elsewhere or had a "diversionary activity." Other attempts to solve this problem of conceptualizing the art that they were preparing to create included ways

of visualizing the final art piece or sketching out the final look. This study does not discuss any other problems that come up during the creation process of art. This means aesthetic problem solving is both conscious and unconscious.

Fields (2004) said, "Aesthetic problems are fundamentally communication problems: the point of artwork is not only to express emotion, but more importantly to evoke an emotional, as well as a critical, response in a viewer" (p. 51). Many ways of problem solving are a step-by-step processes, and this aesthetic way of looking at problem solving brings forth the idea that problem solving happens in a partly unconscious way and does not occur in a concrete step-by-step process. This means that this research study needs to focus on qualities and approaches to discover parts of the unconscious mind instead of a step-by-step process. This study also means that there could be communication techniques of expression that artists and trauma experiences evoke or are learned and used as part of problem solving. It also means that the problem-solving techniques could be conscious and unconscious including more than a focus on the problem. Where are artists with personal trauma focusing their minds while approaching problem solving?

Willard (2003) discusses the problem painters face when starting a painting. A painter cannot paint the entire painting at one time; it is a process of different parts. Willard (2003) quotes Ed Douglas, who said that a painter must discover techniques to see the big picture as each piece of the painting is put together. He expresses that all the different parts of the painting do not create something that is "unified." There is more skill involved to bring all the pieces together. Douglas starts with color and analyzes how all the different colors required to create the art fit together. This requires the skill of

seeing details and how the details fit together as a whole. What if the painter had the ability to see past the canvas? Would this change the painting when considering future settings or ideas that connect to the theme beyond the canvas?

Willard (2003) quotes Douglas who said, "By the end, I want a painting that is one unit, not a collection of parts embellished with excessive detail" (p.12). He begins to describe a process that appears as though it takes the skill of going back to the details and then simplifying to see the big picture to allow the details to come together. Identifying similar subjects is a second step that can bring the piece together. Some artists squint to see past the details, but Douglas opens his eyes wider to take in the colors and patterns comparing and contrasting how each part functions. From this, he defines a theme and what the painting is really about. Douglas understands that he must experiment and take risks.

This ability to see how the painting will look at the end relates to the ability to see and solve the puzzles that life can create. Skills also mentioned include making connections and seeing past the details making connections beyond the problem. Artists who experience personal trauma could be using these skills as their approach to problem solving. This skill of seeing the big picture in the art world could extend even farther to not only see how the painting will look in the end, but the possibilities that could be added to deepen the meaning and texture of a painting, to how the painting will fit in with the environment, and beyond. This begins the process of painting new realities with an aesthetic way of thinking that is beyond our current paradigm.

Willard (2003) begins to bring together the ideas of reflective and deep thoughts from Dewey (1910) to the processes that occur in an artists mind with the overarching

themes of perspective and imagination. Thought goes beyond what is present (Dewey, 1910). Thinking normally refers to ideas that are not perceived. Imaginative stories can produce reflective thinking. Imagination creates a way for a different type of thinking. Thought must have belief in different types of thinking and ideas, support for the ideas or thought to the consequences of the belief, which leads to conscious inquiry. Reflective thought is " active, persistent, and careful consideration of any belief or supposed form of knowledge in the light of the grounds that support it, and the further conclusions to which it tends." (p.6). A person must consciously find reason and create a belief for their thought.

Defining aesthetics. There are many ways of defining aesthetics, finding meaning in aesthetic experiences, and ways to create aesthetic experiences. Shusterman (2006) described how the understanding of aesthetics is understood through the meaning of beauty, but history shows it is a difficult term to describe. The history of aesthetics reveals three themes that describe aesthetics: sensory, perception, and beauty. He goes on to describe the history of the definition of aesthetics pointing out the artist's view and the audience's view in how their perspective is part of the definition as well as evaluating perceptions or point of views. The researcher for this study surmises that aesthetics is more than beauty. If we think of it in terms of interior design, there are many facets that come together to create an experience or environment for many people to experience, but the exact feeling for each person in the room can be different, but all still inspiring. These skills of interpreting sensory, perception, and beauty might be just one small part to explaining how artists experience personal trauma and problem solving.

Caroll (2012) does not think that all art should be required to induce aesthetic experiences, and there should not be a specific response required for the aesthetic experience from a piece of art. This concept applies to the idea of thinking outside the box and seeing the bigger picture; there should be the option of going past the current reality to make new connections. Some ways of thinking do not inspire a person. Some definitions of aesthetic experiences focus too much on the content of the art, which means many pieces are not considered art under those restrictions and are excluded from the definition of art. There could be points of inspiration within the professional's problem-solving experience-but what would induce those points of inspiration? The problem-solving approach from artists with personal trauma experience could include many qualities and skills found within aesthetic experiences or the qualities used by artists to help create these aesthetic experiences. This could mean that the artists with personal trauma experience know how to create aesthetic experiences that are inspiring and do not limit the response to the problem-solving experience. These professionals might leave open the option for opportunities and interpretation, which enhances their problem solving.

Carroll (2012) declares that art should not be defined by its ability to induce an aesthetic experience, and should not be judged on the observer's ability to have an aesthetic experience; art is more than just an aesthetic experience. The researcher agrees that aesthetic experiences are not defined by certain types of content in the art, but it is possible that all art can be presented in a way that creates an experience with the art. There could be more than one kind of aesthetic experience. The researcher agrees that the definition of aesthetic experience should not be confined to whether the work is

considered an acceptable form of art, and aesthetic experiences should not elicit specific

reactions with the art, but can be more of an open place to find your own meaning and

discovery. Is it possible for the problem-solving experience to resemble an aesthetic

experience?

Carroll (2012) described an aesthetic experience as including expressive

properties and a focus on understanding the different qualities that comprise the work.

Could these concepts described be part of the experience in trauma and art when

approaching problems? An aesthetic experience is not limited to certain types of artwork

(Carroll, 1986). This could mean that the aesthetic experiences or qualities of this type of

experience can extend beyond artwork. A reaction to artwork does not have to be an

aesthetic experience, but it is important to know how to have those aesthetic experiences

and if it can happen in more than one kind of art. Can an aesthetic experience be created

outside of what is considered beautiful art? Could a trauma survivor's way of seeing with

their background as an artist produce approaches to problems that are aesthetic

experiences?

A heightened state of consciousness is considered an aesthetic experience when it

results from experiencing the arts (Csikszentmihalyi & Robinson, 1990). In other

experiences such as sports or work it can be called a flow experience, referring to the

work of Beardsley, because both experiences refer to a heightened state of mind.

However, this researcher believes those experiences listed are very casual and do not

produce the depth discussed in the aesthetic experience. It is possible that the aesthetic

experience, not just the skills related to being an artist, is what relates to the professionals

who have experience in arts and trauma and their abilities to see and think in relation to problem solving.

It is possible that the meaning created from being an artist, art that a person has experienced, and trauma experience could be part of the aesthetic qualities used to create the problem-solving experience similar to the aesthetic experience. The aesthetic experience is the combination of the information from the artwork and the information within a person's mind from their life experiences (Csikszentmihalyi & Robinson, 1990). This can produce expansion within the mind, transcendence, a change in the way information is stored and different combinations of thoughts and ideas resulting in different emotions. This combination of the information from the art and the information from an expanded consciousness is also called the process of fusion (Csikszentmihalyi & Robinson, 1990). All aesthetic experiences have similar qualities and structure even though there are different emotions resulting. The experience means something when the viewer is able to give it value within their experience and understanding. This could be what trauma and being an artist does to problem solving. The information and meaning might be processed similarly and result in expanding the mind, connecting new ideas, resulting in new emotions.

Depth of aesthetics. Many people do not know the depth available to their experiences and their senses. Artists are very skilled in seeing and interpreting (Csikszentmihalyi & Robinson, 1990). They speak mainly of what they call visual literacy, but the researcher speaks of the skill intellectually. It is possible that there is a link between the senses that are refined within art and trauma. The dimensions of an aesthetic experience include: perceptual (visually engaging), emotional (creating

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emotions), Intellectual/knowledge (understanding of the art), communication (bringing together the emotional intellectual with the visual, the dialogue with the art or within it) (Csikszentmihalyi & Robinson, 1990). Some works of art use emotion and intellect as part of the experience, but some are transcendent, which is another level specifically experienced with great works of art. These aesthetic experiences require refined sensory skills including an emotional intellect and physical dimension achieved by refining perceptual skills that allow a deeper experience. It is important to focus on the object and this focus involves all the senses. This experience requires the viewers to constantly change and refine skills (Csikszentmihalyi & Robinson, 1990). Could these skills that are developed with experience in personal trauma and an arts background include refined senses, emotional intellect, physical dimensions, and perception skills that allow deeper experiences resulting in a more refined approach to problem solving?

"The human organism has a variety of sensory links to its environment, each of them capable, in different ways, of providing pleasurable experiences," Csikszentmihalyi and Robinson wrote (1990, p.1). The senses can be cultivated and refined to obtain the fullest potential. Different cultures refine different senses in various pleasurable ways such as fine cuisine. The senses are termed as capacities. The arts and the trauma could refine the senses in a way producing a heightened way of problem solving. Csikszentmihalyi and Robinson (1990) wrote,

> And finally the ability to think, itself an outcome of the evolution of the brain, is a
> powerful source of pleasure-some say of the greatest pleasure men and women
> can experience-when it is exercised within the boundaries of an ordered process
> of though, such as a science or philosophy. (p.1)

The meaning of a persons' life is equated to the collection of experiences that occur during a life rather than worldly possessions and successes, thus, aesthetic experiences are more than important. It is discussed how artists use their eyes to create work that contains a myriad of emotions, patterns and events that allow people to experience a state of being that was previously not available to the viewer. Seeing and interpreting are considered skills that must be refined. This is not only about seeing visually in the creation and understanding of art, but as they mentioned, there is a brain and thinking component to the senses. What is it that is cultivated towards problem solving and the way artists have experienced trauma in order to see and think differently?

The five main senses do not go beneath the surface, but there could be other senses developed that allow a person to see and feel beneath the surface. Experience is participation and communication that is transcended (Dewey, 1934). The aesthetic experience is greatly influenced by the environment. The combination of old and new with consciousness is called intuition. This intuition is developed over a long periods of time. Judgment overlooks intuition, which comes from depth below the surface. Imagination is a way of seeing and feeling that comes together to make old things new. Imagination includes inner and outer vision that results in art in addition to ideas from a philosophical thinker, which is also an aesthetic experience. Dewey (1934) finds the artistic values and qualities within experiences that are outside the confines of high classic art. He finds them in common ordinary activities that turn into artistic creations. However, this study is not researching the common, but considering the possibility that those qualities Dewey (1934) described are found outside of a classic piece of artwork.

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Aesthetic sense is important to more than artists, and its qualities should be used within the education of creativity. Beauty is more than what looks beautiful to the eye (Zuo, 1998). "The ability to appreciate and respond to beauty is commonly referred to as aesthetic sense" (p. 309). Aesthetic sense includes the understanding and appreciation of truth. Aesthetic response is also "a sensitivity to tension" and " a lack of harmony" and the ability to identify problems. If a person is an expert, it does not mean they are aesthetically sensitive in the deepest sense. This means that the aesthetic qualities that could transfer to problem solving can be a sensitivity to tension and harmony.

Perceiving the textures and contrasts could be a skill to aesthetic experiences and problem solving. Aesthetic experiences should be explored with zero judgment (Fenner, 2003). Aesthetic analysis, which is part of an aesthetic experience, is looking at and perceiving the textures, contrast, and all the different parts of the art (Fenner, 2003). This is similar to what Greene (2005) described. However, Fenner (2003) believes aesthetic analyses and aesthetic experiences are separate, but this researcher believes a person does not have to analyze with judgment. We have perceptions, but that is different than judgment, and to understand our interaction with aesthetics, we must have an analysis of understanding and interpreting. The experience and ability to perceive beyond the initial sensory intake is what could result in life changing ideas and ways of thinking. Understanding and taking in all the senses that are analyzed are part of the experience and what results.

Insightful perception, sound judgment, subtle discrimination and intelligent evaluation are qualities behind aesthetic sensitivity (Zuo, 1998). It might be possible to find some of these qualities within people who have extensive backgrounds as an artist

and experience within trauma. However, more work must be done to find what qualities exist within these qualifications that Zuo (1998) has given, which is the purpose of this study. What other qualities create the ability to see with this aesthetic sensitivity and how does a person truly approach problems and obstacles with sensitivity of an artist and trauma survivor? Many of these qualities of aesthetic experiences could be seen as a framework to understand a different way of problem solving, but also skills or qualities that could be used in the problem-solving experience bringing the inspiration and transcendence of an aesthetic experience.

Mind and body. Knowing how the problem -solving professionals experience problem solving both mentally and physically and how they experience different senses will allow the researcher to understand the way they think and perceive. Experiencing the emotion of art is experienced through the body (Albrecht, 2002). The experience and perception of art allows and involves the way a person thinks and perceives through their senses, and as an artist, this is how they create. In this case, in reference to seeing beyond the bigger picture to problem solve and result in positively impacting the client, there is a higher level of thinking and creating. According to Albrecht (2002), "In educating and cultivating the sensibility of somaesthetic awareness to improve our somatic perception and performance, we not only enhance the instrumental resources for producing art but also our capacities as subjects to enjoy it." Albrecht (2002) believes that we have five minds that work together, and one of those minds is the creative mind. The creative mind is where solutions are found, freedom is used, less judgment occurs, better listening takes place, original thoughts are created, there is less ego involvement, and the mind frame of thinking offers options to choose from. Creativity is experienced. Physical body

movement enhances the creative experience and enhances problem solving. This includes

walking, gesturing, etc. This could mean that the art and the trauma experienced is

experienced through mind and body. The senses include how it is interpreted through the

mind and the body, which means there could be more to learn about how artists with

trauma experience, experience problem solving through their body. Could there be a sixth

mind to add to the five Albrecht (2002) described?

Aesthetic experiences are considered an intellectual and physical experience

(Frois & White, 2013). Aesthetic experiences and the creation process of the arts are

described as including a spiritual or intuitive experience that is beyond oneself. This

spiritual mind allows a person to feel 'beyond' the material of the art. Jones (2014)

described this as what Marshal Mclulan meant by his famous idea that Jones paraphrased,

of seeing "the message behind the medium." People who learn to see three dimensions

enhance the ability to understand and experience the arts (Jones, 2014). The researcher

looks at the skill of seeing beyond the bigger picture and the canvas as seeing in a more

detailed dimension such as four-dimensional. Do the artists with trauma experience see

four-dimensionally?

Those who use their mind separately from their body are respected (Dewey,

1910). Gestalt and art appreciation are connected with aesthetic aha moments where

observers see something within the art, such as a more modern piece of art where a face

can be found within the art. Because of this revelation, he or she likes the art more (Muth

& Carbon, 2013). Do those who have the experience variables of being an artist and

personal trauma use more body movements in their communication or their

brainstorming process? It is unclear how their body is used, if at all, in the creative problem-solving process.

Somaesthetics is how the body is involved in aesthetics and the creation of perception and experiences (Shusterman, 2015). Shusterman (2015) argues how a better understanding of somaesthetics and the body's senses can expand a persons' perception or view in more than art including many areas of life. The body has limits to our perceptions. Our sensory perceptions can be enhanced as a person becomes more aware and practices using the senses provided by the body, which can allow a person to sense more. Shusterman (2015) clearly links aesthetic experience to the way a person perceives the experiences through their mind and body. How does this affect a way of thinking and what ways of thinking are possible when catapulting off of the experience of the aesthetics in art and its concepts? The portrait of a person who looks beyond the canvas begins to be seen as someone who perceives beyond his or her body's foundation of sensory ability. "Heightening our somatic consciousness could improve our architectural experience (in reference to Hegel)" (Shusterman, 2015, p.14). This researcher argues that we can extend this to how it could improve our way of thinking so that it results from aesthetic experiences and allows a person to see and think differently when problem solving. Creating art includes the body's use of the senses to physically, for example, paint the art as well as the mind to interpret. The body in totality affects how we understand the art, and possibly how we understand a problem.

Meaning making. This section reviews the qualities that encourage meaning making and qualities that artists and other intellectual people possess that influence how a person sees in an aesthetic experience. The skills used in meaning making in art could be

transferred to meaning making within problem solving. Meaning making between the person and the art is highly influenced by the skill of reflection and focused looking, and within that reflection, there are questions asked (Frois & White, 2013). Categories that are called "perception moments" that are included for the meaning making process include: memory, feeling, reflection, expectation, explanation, inquiry, judgments, knowledge/content, attitude, bracketing (putting a different thought aside to continue) and 'additional moments' (Frois & White, 2013). Meaning making includes comparisons and connections that are made, judgments by the person experiencing the art, focused looking, and is followed by more reflection, noticing differences. Meaning making is dependent on the persons' knowledge and experience and meaning can be "complemented, reinterpreted and changed" (p.119). This research is looking to find how the problem-solving professionals make meaning and connections within the problem-solving experience.

These perception moments can be visited in a different order and pattern through the meaning making, include or exclude certain categories depending on the experience, and have an unlimited amount of interpretations to be made (Frois & White, 2013). This is out of the box thinking or thinking and seeing beyond the big picture with the idea that one interpretation or five interpretations are not the only options to work with or rules to work within.

Knowing is described as an aesthetic activity and is a "profound understanding, deep appreciation, and personal commitment to truth, wisdom, and beauty" (Zuo, p. 311, 1998). Knowing types are those who "can appreciate the beauty and truth of a new theory before its power and validity are fully demonstrated" and learning types need concrete

evidence. The knowing types use feeling, intuition, faith and rational thinking when addressing creativity and can see truth and beauty. Russ argues that a person who wants to advance from learning to a knowing type must develop aesthetic sensitivity and professional judgment and go "beyond the letter of the law to its spirit" (as cited in Zuo, 1998, p.311). This quality of going beyond the letter of the law using feeling and intuition, faith and rational thinking, could be used to address problems as part of the portrait of those who are artists with personal trauma experience.

The approach to problems can begin to look like a piece of art, and the aesthetic experience is expanded and created with their experience with trauma. The artist vs. a museum professional would approach the art and their experience differently. The trauma survivors could be looked at as the museum professional because he or she did not create the problem, but are able to understand it. Thus, as Csikszentmihalyi and Robinson (1990) explained, the views of the museum professional are more important in understanding the aesthetic experience. People who are not trained enough to understand the art will not have an aesthetic experience (Csikszentmihalyi & Robinson, 1990). This could mean that the untrained person might have an aesthetic experience, but of a much lesser caliber. One museum professional who they interviewed stated, "…to really have the object hold for long periods of time, that's more a learned thing. You only see what you are taught to see. You have to be taught to see a certain amount before you can go from that and develop a more sustained and creative process of seeing" (Csikszentmihalyi & Robinson, 1990, p. 42). This is what trauma and the arts could do to the process of seeing problem solving; it could train the mind to see qualities and aesthetics past the object farther into the experience. The viewers would look for closure in the experience

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with the art and solving the problem of understanding the art and everything encompassed to the experience. The viewing of the art is described as trying to solve a problem or an intellectual problem. The experience of the artwork is seen as discovery of the artists' meanings, the arts history, the culture that it created and the function of the art. This means that artists have an immense amount of problem-solving experience and focus on discovering meaning! These skills could be applied to other activities in life. Do artists transfer these skills to other activities in their life or profession?

Intellectual thinkers have aesthetic moments when their ideas become meaning and part of the object (Dewey, 1934). The aesthetic experiences include interactions with the surroundings. He discussed rhythm and harmony within the environment. He described how a person must be fully present and able to use all the senses to sense the sounds, non-verbal etc. The aesthetic perception means being aware of outside signals to sense and not just being within one's self. He is really discussing the separation of the senses and the mind.

Art communication. The meaning making in art could almost be considered an interpersonal communication situation, even if it is just observing their experiences. The arts experience becomes more impactful when there is a dialogue with one's self in addition to the social interaction to other people's experience with the same artwork to verify the experience (Frois & White, 2013). These skills may directly relate to the skills that could be important to problem solving and discovering the meaning within that experience. The skills that could be related are inner dialogue to brainstorm or be as part of the experience, and there could also be the verbal social communication to research and network.

Experiencing art, specifically within the context of learning about art within an art museum, is considered an active and experiential learning experience (Lachapelle, Murray, & Neim, 2003). All aesthetic experiences include learning (Lachapelle et al., 2003). Artists with trauma experience might be more open to learning allowing them to construct new knowledge. Aesthetic experiences include a person's response to art excluding judgment of quality, but also including a learning experience where new knowledge is constructed. The model Lachapelle et al. (2003) created has two levels. The first part is, "Learners must not only look at the work of art, but they must also take the time required to really see it and respond to it" (Lachapelle et al., 2003, p.84). Secondly, the learners and art viewers must also incorporate their external knowledge about the art to their experience. In the first part of the model, a participant's past experience in life is incorporated and they apply personal skills and understanding of art. This is mediating knowledge. Objectified knowledge is the information and feelings that the artwork and the artist convey to the viewer. Lachapelle et al. (2003) described this as constructed knowledge or aesthetic dialogue. It is here that Lachapelle et al. explained there is resolution to understanding the artwork. This shows how the art experience is an interpersonal experience. The experience described here includes using life experience to understand and make new meaning with art, which could be how artists approach problems using their life experiences, but also making room for new meaning. Are there problem-solving techniques within an aesthetic dialogue? There is communication on both ends in different ways. It is possible the skills involved here deserve more consideration so as to learn how to apply these skills in more than just the art experience

at the museum, but also within situations such as the doctor-patient or student-teacher environment.

Theoretical learning is the other option discussed, as opposed to experiential learning, as a result of an aesthetic experience (Lachapelle et al., 2003). This is where there is only constructed knowledge applied. Theoretical and experiential learning is what creates aesthetic development. Are there aesthetic ways of being and thinking and communicating that inspire this process of learning? Are there ways of constructing new knowledge that end in a new understanding that is outside of the museum and is about ideas other than the artwork itself?

Shustermann (2006) is correct in that there is more than one participant in the aesthetic experience. This study not only looks at the leader's perspective, but in how he or she uses their approach in relation to their client. Transcendence through an aesthetic experience is described as "…a change in a person's physiological or psychological state that engenders an awareness or sensation of going beyond one's usual experience of time, place, or be-ing (Sager 2015)". Transcendence, studied within the Haitian culture, is created by the production of an aesthetic response to a musical performance and is characterized by the experience of stepping outside a person's normal existence (Sager, 2015). Spiritual influences also influence transcendence. This means that the artist with trauma experience can go beyond their own experience and allow for spiritual inspiration.

Sager (2015) considered how aesthetic experiences involving transcendence and communication are viewed with self and society in mind. Spiritual performances studied included Voodoo in Haiti and African American gospel music and how they are linked to the creation and experience of aesthetics to encourage meaning making resulting in

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transcendence. The audience and musical performers must have participation and communication from both ends to create the aesthetic response and result in spiritual transformation. Specific musical qualities that initiate this aesthetic response and the creation of meaning include "the text, the sounds, timbres, interactions, volume, and force of the performance communicate sincerity, personal testimony, intensely felt emotion, and religious conviction," according to Sager (2015, p. 60). These qualities can be seen as verbal and non-verbal communication skills that allow these experiences. In the study of these gospel and music oriented gatherings, the people wanted transcendence, and each spiritual setting had participation from the 'audience' as a major element. Could this concept be applied to more than just the religious spiritual setting? Could the simple desire and the idea of group participation to be transcended be part of the ingredients needed to see beyond the problems and result in solutions that change lives the way artists and trauma survivors approach problems?

Whitman's poetry described a skill called artistic communication (Garrison, 2013). The poetry ignites the sensation and emotion creating meaning with feeling and less focus on content allowing for a greater and deeper aesthetic experience. Garrison (2013) wrote in reference to Whitman, "He uses poetry to powerfully express significant and sense meanings within their more inclusive anoetic qualitative context, thereby imparting a richer aesthetic experience" (p. 314). This would support the idea that there is an artistic way of communicating that allows for deep textural aesthetic experiences and way of thinking that can allow for seeing beyond the current confines and ideas of problem solving. What skills or qualities create this aesthetic communication and experiences that allow for senses to be tapped that are beyond our current perception?

Garrison (2013) wrote, "Whitman frequently crafts significant linguistic meanings that simultaneously communicate qualities and feelings that appeal to our precognitive animal emotions" (p.314). To see beyond the surface details to change lives and problem solve can be looked at as an artistic way of thinking and communicating within one's self and another. Dewey (1934) described how meaning can become aesthetic and suspended to think on, which is an art itself.

There must be focus on the value, meaning, and process of and less on the goal of finishing a task (Stroud, 2008). A focus on the process and a community of people is part of the development. He describes artful living as the ability to focus on inner needs and outer demands. Stroud (2008) works off of the strong theory from Dewey of the importance of being present to create artful communication. Artful communication, derived from Dewey's theories, is focusing on the meaning and value of the situation occurring in addition to the people involved and less on the ends or task. There is a focus on the art of communicating and not on the goal. This begins to change the way a person sees the communication or interaction occurring. Focus on the means and process of the communication and attend to the current needs of yourself and the others. Do not focus on an ideal self.

It is clear that aesthetic experiences can include many forms of communication. This section has reviewed many forms of strategic thinking and creative problem solving, explored the meaning of aesthetics and the depth of aesthetic experiences, identified people who experience aesthetics differently, how the mind and body are part of the aesthetic experience and how art is a dynamic process involving communication. All of

these areas have possible connections to problem solving or skills and qualities that could be tested within the problem-solving experience.

Trauma

The problems resulting from trauma can become complex and have high stakes. According to Dutton, Frost, Worline, Lilius, and Kanov (2002) "…individual and group traumas will continue to disrupt people's daily routines at times, shattering their lives-…" (p. 56). These traumas and difficult problems have the ability to change life forever. This could include financial, physical changes, lifestyle changes, and shifts that may result in changes to the way a person lives and functions. These changes can be confronted with people in professional positions such as doctors, educators, life coaches, university administration, and many more who have a problem-solving role and work with clients.

This study is looking at more than just the event of a trauma, but problem-solving professionals with trauma and chronic struggling experience as the subject selection criteria, and these problem-solving professionals are in a position where many levels of problems are presented to them, including trauma and struggling. There are many levels and kinds of suffering discussed in the literature that can be associated with trauma such as crisis, nadir (lowest point) experiences, and many more. The art experiences focus on problem solving from a very positive view, but the trauma must start in the midst of the heartache. Where then is the development of the growth that might relate to the development of the problem-solving approach?

The literature shows positive qualities that can result from trauma. This literature is included because it identifies qualities that could be derived from trauma. The literature reviewed discusses more positive qualities than negative because that type of literature

focuses on the by-products from the experience and how people are using those qualities. There could be negative qualities used from trauma within problem solving as well, but because those qualities are still used, this is indicative of a positive way to be using qualities they have developed.

The literature reviewed for this study discusses the definition of trauma and the different levels of growth from adversity to trauma and the growth that comes from trauma. The growth section includes: relationships, skills, and positive changes in self; resilience; meaning and the meaning that occurs during and after; and what induces growth, which includes positivity, distortions, and severity; coping; and creativity. Each section in the literature review about growth overlaps showing qualities of growth relating to other sections. Growth can be found in the literature throughout the trauma and after the trauma.

Defining Trauma

There are many different levels of problems from general to complex, and this literature begins the discussion of qualities related to stressful events to trauma and the growth associated. "There are life events that are experienced as traumatic because they are severe ordeals beyond our control," according to Fine (1990, p.459). Trauma can be over a short time period in one event or last for years (Janoff-Bulman, 1992). Traumatic events include life threatening illnesses, combat, natural disasters, serious accidents, etc. It is difficult to define the difference between traumatic and ordinary. Janoff-Bulman (1992) described traumatic events: "Traumatic events are unexpected in the normal course of daily life; they are extreme unusual crises" (p.53). Traumatic events are

"sudden and unexpected, uncontrollable, out of the ordinary, chronic…" (Tedeschi &Calhoun, 1995, p.19).

Jacobsen (2006) explains that there are some people who have a great deal more of adversity than others, and it is not given evenly to each of us on earth. Fine (1990) wrote, "The inevitability of life's trials and tribulations and the struggles between good and evil are evident in religious traditions, myths, the arts, and everyday conversation" (p.458). Experiencing trauma allows us to learn what our strengths and weaknesses are (Janoff-Bulman, 1992). Janoff-Bulman (1992) refers to the story of Job from the Bible and how he experienced many chain events of catastrophe. This is an example of trauma and chronic struggling. What strengths and weaknesses do the problem-solving professionals have and are there any that relate to problem solving?

Problem solving can involve choice, but how do problem-solving professionals initially choose to tackle problems? People can decide and choose how to tackle their adversity (Jacobsen, 2006). Are problem-solving professionals with trauma and chronic struggling experience making different choices when it comes to how they approach problems? There are some parts of life a person can change, and those things must be accepted. Jacobsen (2006) wrote, "Crisis provides the possibility of an opening to the depths of existence" (p. 46). This crisis allows a person to see deeper into something and can turn into changes and possibilities for life. What loss have the problem-solving professionals experienced, and has it influenced their perspective on the problem-solving experience?

Problems and problem solving could be viewed as a loss of something or an opportunity. Crisis loss is when a person loses something important which involves grief

(Jacobsen, 2006). Loss can include physical loss, psychological loss, losing part of yourself and your life, and loss of meaning and world view. Crisis is described as an opportunity for growth and a turning point within existential-humanistic school of thought (Jacobsen, 2006). Crisis is seen as an "opening of possibilities" by existential theorists (Jacobsen, 2006). Crisis will always have pain and possibility, but to obtain the possibilities, a person must experience the negative pain. All other perspectives on how to approach crisis, look at it with the idea of needing to overcome the crisis, which can take away from the quality of life if a person treats crisis this way. This takes away from the dimension of life. When a person is falling to their knees because the crisis is too much to bare, that is when there is still potential to flourish. Three levels exist within crisis: loss, adversity, and opening of existence. This is when a person can choose to define him or herself and on a deeper level (Jacobsen, 2006). There could be defining moments within a problem-solving approach where a person allows the negative pain or struggle that can come with problems to find solutions.

Sacks (1984) described how dramatic the change from trauma is on a person's life. He also described how difficult it is for the mind to comprehend the change. According to Sacks (1984),

> Being full of strength and vigor one moment and virtually helpless the next . . . with all one's powers and faculties one moment and without them the next . . . such a change, such a suddenness, is difficult to comprehend and the mind casts about for explanations. (p. 21)

This may mean that the problem-solving professionals might understand something that most have a difficult time comprehending because they have experienced trauma. Do

they comprehend more about problem solving because of their trauma and chronic struggling? According to Locander and Luechauer, (2010, p.13), "Adversity reveals character more than it builds or shapes character." What else does adversity and trauma reveal? Can trauma build or shape other concepts and skills? It is possible that certain characteristics created from trauma are used in the problem-solving approach.

An "extraordinarily" stressful situation compromises a person's abilities and reality, but hearing the stories, which include their feelings and actions that are part of their trauma, show the character of resilience (Fine, 1990). This means that amidst the trauma, there are good things that can come to light from the trauma, and in this case, finding the character of resilience. Problem solving may include the character of resilience. How might this influence problem solving?

Less stressful situations may be able to successfully use traditional ways of problem solving, but more severe experiences are not traditional or predicable and thus, professionals may be less equipped to address them. What skills are necessary to comprehend, thrive, grow, and solve problems associated with events such as being imprisoned during the holocaust to a brain injury and many other levels of trauma to general problems? Are there skills developed from trauma that can be used to create a new way of problem solving? And how are people using the skills gained from their past traumas today? The problem-solving techniques that could be used or learned within traumatic events by those who have faced many overwhelming problems within their traumatic experience might tell us something different than traditional problem solving.

Growth

There are many terms used in this literature to describe growth from trauma including: adversarial growth, positive-by-product, posttraumatic growth (PTG), and many more. The literature in this section describes many different kinds of growth that occurs because of trauma. Positive experiences are not the only predictors of growth. PTG is a positive change that happens cognitively and emotionally, which can change behaviors (Tedeschi, Park, & Calhoun, 1998). The Post Traumatic Growth Inventory (PTGI) was measured to find correlations of the symptoms of distress from the Impact of Event Scale (IES: Horowitz et al., 1979) and the Hospital Anxiety and Depression scale (HADS: Zigmond & Snaith, 1983) (Snape, 1997). The study revealed that growth is directly related to feelings of avoidance and intrusion. This affirms the idea that growth can come from negative events.

PTG can include insights about life that is more than an ability to cope Tedeschi et al. (1998). The way a person reacts to their suffering creates an opportunity to develop another character or value such as bravery (Frankl, 2006). Research about trauma has focused on the negative effects instead of discovering what positive results can come from traumatic events (Tedeschi & Calhoun, 1996). Park (1998) described growth and thriving: "Growth refers to any number of positive changes a person reports experiencing following stressful experiences. Thriving, on the other hand, refers to a higher level of functioning in some life domain following a stressful encounter" (p.269). Pain and suffering allows the possibility of growth (Park, 1998). Wisdom is found through struggling (Tedeschi & Calhoun, 1995). This wisdom might be the only road to the highest form of living. Stress related growth can help people cope and Park (1998)

believes this should be recognized by communities so that this type of thriving and growing can occur. There could be importance to embracing the negative within problem solving. If the problem-solving professionals have experienced growth in relation to their problem solving, it would be important to recognize it so that more of this growth and use of skill can be developed and used.

Positive changes from adversity are considered adversarial growth, according to Linley and Joseph (2004). It is described that adversity can push a person to a higher level of functioning because of the changes the adversity can encourage (Linley & Joseph, 2004). Adversarial growth is also known as posttraumatic growth, perceived benefits, thriving, positive-by-products, positive adaptation, positive adjustments, etc. Studies on adversarial growth are more dependent on the characteristics of how it affected a person or made them feel, instead of the actual event.

Losses in trauma can include ability or skill, ways of understanding, and loved ones (Tedeschi, Park, & Calhoun, 1998). The extreme loss has an effect on a person to result in reconstructing their world that is considered superior to the previous. Tedeschi, Park, and Calhoun (1998) state, "Posttraumatic growth (PTG) is both a process and an outcome" (p.1). The people who bounce back from trauma use that as a catalyst for even more growth. How do problem-solving professionals understand their world in relation to problem solving? Maybe problem-solving professionals used their trauma as a catalyst.

Those who experience PTG have growth, "beyond their previous level of adaptation, psychological functioning, or life awareness, that is, they have grown" (Tedeschi, Park, & Calhoun, 1998, p. 3). This could be compared to the heightened states of consciousness and thinking described from the arts and aesthetic experiences. Both

trauma and aesthetic experiences and the qualities within them could them be described as enhancing growth, learning, and problem-solving skills. Growth from these experiences could be used in a problem-solving approach.

The growth that occurs from a trauma could be happening within what is called the nadir experience. A trauma can be followed by the nadir experience (Stagg, 2014). The opposite of a peak experiences is a Nadir experience (Thorne, 1963). A peak experience is when a person feels the highest point in life, most fulfilled, or the most exciting time. A nadir experience is considered the lowest or worst point in life including feelings of loss, tragedy, and trauma, and can include death or illness. Nadir experiences include the nadir event, the adjustment time period, and the return to living. The nadir experience continues after the trauma and addresses the life after the loss and traumatic event. It can include questioning the meaning of life and spirituality. Questioning could be a skill used in the problem-solving professionals' approach.

Stagg (2014) described results from nadir experiences include deeper feelings of compassion, changes in personal well-being, as Tedeschi and Calhoun (1996) describe, but also transformation in inner wisdom, meaning making, spiritual growth, and compassion. The development or recognition of skills and self-capacity. Stagg (2014) wrote, "Sometimes when the heart breaks, it breaks open" (p.87). Changes are described and a transformation and enhancement of skills when compared to before the experience. These are all skills that could be related to how a person would now approach problem solving. It could be the combination or dynamic of the artist/aesthetic experiences and trauma/nadir growth experiences that create the synergistic approach.

Stagg (2014) described how peak experiences are just as important as nadir experiences, which encourage reflection and can result in psychological growth and transformation. "Unlike the peak experience, which brings with it a sense of oneness and integration (Maslow, 1987), the nadir experience initially causes a sense of aloneness and vulnerability (Kumar, 2005, p.87)," according to Stagg (2014). The arts literature discusses how some arts experiences are transformational, aesthetic, or peak experiences, but those start with positive experiences that do not have to include trauma. Trauma is being described as somehow resulting in positive peak experiences after the trauma and nadir experience. It could be argued that art has adversity in it because of the struggle associated with understanding and creating art. Both trauma and the arts experiences have low and high points. It is possible the opposing qualities of low and high experiences could be associated with problem solving.

Measuring growth. Park (2004) argues that growth resulting from adversity is different depending on how the researchers measured the data, and there needs to be more work done to measure growth and benefits from adversity and trauma. The studies in this literature review focus on questionnaires and surveys of pre-determined benefits. Tedeschi and Calhoun (1996) created a measurement of perceived benefits from multiple different kinds of trauma called the "Post Traumatic Growth Inventory" (PTGI). The PTGI measures how people perceive benefit to their relationships, philosophy in life, and change in self-perception after attempting to cope from traumatic events. This measurement scale only measures those specific types of benefits, but what other kinds of benefits can occur throughout a person's life because of trauma when faced with adversity? More specifically, their test for their measurement scale did not study events

described at a severe level. Events such as academic problems were included with injuries and relationship breakups. The severity of events could change the outcomes and the problem-solving techniques developed. Frankl (2006) noted that suffering at any level is suffering, but it is not clear if the problems such as academic problems had true suffering involved. It was described that Tedeschi and Calhoun (1996) believed if people with more severe trauma were tested, those people would have reported more benefits.

McMillen (2004) believes that the system created by Tedeschi and Calhoun to measure posttraumatic growth (PTG), some of the first people to research PTG, does not allow them to see all of the actual growth because the focus of the measurements. There is more to be seen. And the model does not account for all the factors that influence possible growth. He claims that the model should spend more time dissecting what makes up each section of reported changes. There are so many other skills and variables that could go into the idea of personal strength, for example, that are not accounted for. There is no exhaustive list of positive-by-products, which limits the study when using this measurement method (McMillen, 2004). These types of studies focus on the positive-by-products or growth, but it is unclear how any of those specific skills are developed or used after the trauma.

Many PTG measurements might not include all of the benefits because a person might not consider a change in philosophy a benefit, and it may go undetected in an open-ended interview (Cohen, Hettler & Pane, 1998). This could mean that there needs to be a different explanation as to what is a benefit or asking about specific skills (Cohen, Hettler, & Pane, 1998). That is why in this study, the researcher is looking for qualities and skills that might have been developed as a result of the trauma and how those skills

or qualities may show up within the problem-solving approaches. There are many forms of measurements and scales used throughout the literature review. This researcher finds them limiting because the scales pre-determine the growth categories.

Literature focuses on growth from trauma includes a combination of three themes: a focus on self-development on personal qualities, new skills and a focus on relationships. There are many other qualities listed in the literature that describe growth from people who have experienced trauma, but self, new skills and relationships are strong themes. If posttraumatic growth occurs in relation to problem solving, when and how does it develop?

Relationships, new skills, and positive changes in self. The literature about growth shows many relationships, skills, and positive changes in self as a result from trauma. McMillen and Cook (2003) measured positive-by-products, which are unexpected positive outcomes, with spinal cord injuries and compared it to other research measurements for well-being. It was found that well-being and positive-by-products might be very different outcomes or that certain positive-by-products are specific to each category of well-being. The positive-by-products found as a result of the spinal injury included family closeness and increased compassion (McMillen & Cook, 2003). Seventy-six percent of people also mentioned other positive-by-products not included on the scale that was used including: "…new attitudes, new views of self, new view of persons with disabilities, changed life and new opportunities, gratitude, and helping others" (McMillen & Cook, 2003, p.80).

Positive-by-products from substance abuse recovery include: "…increases in self-efficacy, family closeness, closeness with others, compassion, and spirituality, and

changes in life priorities" (McMillen, Howard, Nower, & Chung, 2001, p.76). These are

closely related to positive-by-products resulting from other kinds of traumas. However,

the closeness to others is manifested differently depending on the trauma. This would

indicate that there is more to their trauma experience that allows them to be helpful.

Problem-solving professionals may use their experience to help work with their clients.

Trauma and crisis result in circumstances that are overwhelming to a person and

affect a person's ability to cope (Tedeschi & Calhoun, 1995). Self-reliance can be gained

from trauma in addition to more vulnerability. This recognition of self and vulnerability

results in more disclosure resulting from the trauma and ends with the ability to see more

hope than before (Tedeschi & Calhoun, 1995). These skills could all be used towards

problem solving in the trauma and problems faced in the future. Self-reliance and

vulnerability could be skills gained and used for problem solving.

Changes from the trauma might have happened unconsciously in relation to the

problem-solving experience. Changes can happen so gradually; the professionals might

not even realize how their trauma experiences relate to their problem-solving approach.

Constructivist Self Development Theory, when applied to the effects of trauma, shows

five areas where the self is changed in some way:

1. Frame of reference: one's usual way of understanding self and world, including

spirituality. 2. Self-capacities: defined as the capacity to recognize, tolerate, and

integrate affect and maintain a benevolent inner connection with self and

others.3.Egoresources: necessary to meet psychological needs in mature ways;

specifically, abilities to be self-observing, and use cognitive and social skills to

maintain relationships and protect oneself. 4. Central psychological needs:

reflected in disrupted cognitive schemas in five areas: safety, trust, control, esteem, and intimacy. 5. Perceptual and memory system: including biological (neurochemical) adaptations and sensory experience. (Saakvitne, Tennen, & Affleck, p. 283, 1998)

As meaning is constructed, all parts included in a person's frame of reference are subject to change including changes in understanding to self, world, and spirituality (Saakvitne et al., 1998). This theory takes into account negative and positive changes from trauma and assumes some change was purposeful and other change was unconscious, and that adaptation is abrupt and gradual. This shows the importance of exploring the sensory experience within this research and possible adaptations and developments to the senses.

A shorter version of the Changes in Outlook Questionnaire (CiOQ) scale was created by Joseph, Linley, Shevlin, Goodfellow, and Butler (2006) is a valid measurement to personality and social psychological elements relating to trauma. Posttraumatic stress and posttraumatic growth are not totally separate; both are part of an experience. However, PTSD does not automatically lead to PTG (Joseph, Linley, Shevlin, Goodfellow, & Butler, 2006). Their scale showed posttraumatic growth with perspectives including:

1. I don't look forward to the future anymore. 2. My life has no meaning anymore. 3. I don't take life for granted anymore. 4. I value my relationships much more now. 5. I'm a more understanding and tolerant person now. 6. I no longer take people or things for granted. 7. I have very little trust in other people now. 8. I feel very much as if I'm in limbo. 9. I have very little trust in myself now. 10. I value other people more now. (Joseph et al., 2006, p. 336)

This shows their perspective on life, their relationships, and themselves. These are both negative and positive. This could mean the stress and the growth can result in positive and negative views on life, self, and relationships.

Resilience. Resilience can shift, expand, or run out (Fine, 1990). Resilience is more about how a person interprets rather than the logistics of what happened. Human capacity can expand or deflate depending on the circumstances and a person's perspective on the issues or variables involved. Resilience is not developed in the same time frame for everyone. People who rise above adversity need help and sometimes they do not. There is no formula for resilience (Fine, 1990). The personal perceptions and responses to adversity can transcend the reality of the event and become an important part to survival, rehabilitation and recovery. The cognitive process could transform the trauma into a different level of success. Fine (1990) wrote that resilience includes the ability to take the "familiar way of solving problems into a novel application, one that may save a life" (p. 466). What is this novel way and application? Does this novel way and application of solving problems with resilience change when confronted with difficult problems in the future? Resilience is a quality within the problem-solving research that clearly has an effect on a person's way of seeing problems.

Adversity and overcoming obstacles or problem solving could involve resilience. Shepherd, Reynolds and Moran (2010) studied adolescents and their recovery from adversity and building resilience. Their study revealed the participants experienced chains of adversity, instead of just one event, lasting for two years or more. Pivotal moments or tipping points acted as a catalyst to starting recovery and making changes. Many of the tipping points are described as events that show a possible alternative, others

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were psychological insights where suddenly they saw something different. These tipping points changed life in some way to allow them to see something different. What do people see towards adversity and complex problems after experiencing long-term adversity? How do they problem solve? What qualities had these women developed at this point to see things differently?

Some qualities described by the women who were resilient were self-respect and self-worth, but there might be even more (Shepherd, Reynolds, & Moran, 2010). Short-term strategies for these resilient women included drugs and alcohol, but also appreciation for normal adolescent activities, journal writing (Shepherd, Reynolds, & Moran, 2010). Long-term strategies included focusing on relationships with family and social relationships and taking part in opportunities that being a teenager offer and keeping their position as a student. The adolescents found more roles in life that became meaningful to them and had a better understanding of their strengths. The adversity influenced their now positive view of themselves and life. Problem-solving professionals could have short and long term strategies.

Characteristics of resilience such as trusting one's instincts and the influence of spirituality could be characteristics of problem-solving professionals. Positive psychology is considered resilience or finding positives in the situation (White, Driver, & Warren, 2008). Resilience is used to help those with severe illness or trauma cope. According to White et al. (2008), "Resilience is considered a multidimensional, dynamic construct made up of a variety of personal qualities (i.e., spirituality, personal competence, social competence, family cohesion, social re- sources, and personal structure)" (p.10). The definition of resilience is different for many researchers.

Resilience can be a learned skill. One of the measurements used by White et al. (2008) was the Connor-Davidson Resilience Scale (CD-RISC). The five characteristics of resilience from the CD-RISC are: "(a) Personal competence, high standards, and tenacity; (b) Trust in one's instincts, tolerance of negative affect, and strengthening effects of stress; (c) Positive acceptance of change and secure relationships; (d) Control; and (e) Spiritual influences" (Connor & Davidson, p. 14, 2003). Connor and Davidson (2003) extracted characteristics from previous articles and research and claims that resilience is quantifiable. Traumatic brain injuries or spinal cord injuries were researched to find how resilience played a factor in their recovery (White, Driver, & Warren, 2008). The more resilient the person is, the hardier they are with less vulnerability and stress in their recovery. Personal strength and social competence are skills associated with resilience (White, Driver, & Warren, 2008), but what does that personal strength really comprise of? There could be a much larger process of creativity and problem solving within the characteristics found in the CD-RISC scale. Problem-solving professionals may consider themselves to have inner strength and strong social skills.

Meaning. This section reviews the process of constructing meaning and the growth that results during and after trauma such as a person's perspective of the world (Janoff-Bulman, 1992) and skills such as going against the norm (Jacobsen, 2006). Trauma affects a person's assumptions of the world. Our paradigms and assumptions are challenged and affect a person's "inner world." Benevolence (that the world is a good place), meaning (beliefs and why the events happen) and self-worth (view of self) are all changed because of the trauma experience (Janoff-Bulman, 1992). According to Steger,

Frazier, and Oishi (2006), "We defined meaning in life as the sense made of, and significance felt regarding, the nature of one's being and existence" (p.81).

There are two different levels of meaning (Park & Folkman, 1997). Global meaning is considered goals (purpose) that are valued and beliefs (order) that are strong and withstand time, including goals and assumptions of the world. Situational meaning is how a person finds meaning in their situation and how it relates with their global meaning, or the significance of the event. This includes search for meaning that can have an effect on global meaning as a result. Situational meaning includes appraised meaning, and meaning as outcome (changes in global meaning), and the search for meaning (meaning-making coping). Meaning making is when global meaning includes the situational meaning with appraised meaning of both (Park & Folkman, 1997). Global and situational meaning sound very similar to the big picture view and detail zoomed in view discussed from an artist managerial view. The skill of appraising meaning to both situational and global meaning may add more perspective and meaning when applied to problem solving by problem-solving professionals.

The process of assigning meaning starts with the appraisal of meaning which includes the primary appraisal and secondary appraisal (Park & Folkman, 1997). Primary is what the event means personally. Secondary appraisal is what a person determines can be done because of the event including coping strategies. Next, is the search for meaning, which includes coping. Next, is the meaning making process which includes reappraisal of meaning, changed appraised meaning, attribution process, changed global meaning, and meaning as outcome. Re-appraisal can transform the original appraised meaning situationally and globally to accommodate the new information from the event that is

realized when discrepancies are found. The changed appraised meaning helps people cope and redefine meaning as a result. The attribution process to assigning meaning involves many attributes including asking questions such as who is responsible, why did this happen, what is the reason, questioning who is in control, and benefits. Attributions contribute a great deal to making meaning. Meaning as outcome includes the changes that result to affect global meaning and the meaning of the situation (Park & Folkman, 1997).

Meaning: growth after. Tedeschi et al. (1998) cites how Frankl (1961) explains that creativity, suffering, and love is how people find meaning. Trauma causes a change in relationships resulting in a stronger connection, philosophy of life, self-disclosure and emotional expressiveness (Tedeschi & Calhoun, 1995, p.19). People perceive meaning of life and priorities differently because of the trauma. People who grow from trauma become stronger because of the difficulty a person has coping when the trauma hits. This begins the process of discovery, which is described as enlightening. The ideas resulting from the discovery are put into action within a person's new life. Personality of success within trauma includes the willingness and active approach to problem solving. People's interaction with the negative results from trauma determines a person's success in coping. What then, is part of this approach to problem solving? If this personality of success includes an approach to problem solving, then there must be more to this approach.

Making sense of an event and finding something positive are two different processes and results (Davis, Hoeksema, & Larson, 1998). Making sense of an event happens early on in adjustment and finding benefit takings longer. People who make sense of their trauma and loss earlier on have less distress long term. Making sense of the trauma, specifically that of losing a loved one, and finding benefit helps with adjustment

after the loss. The older you get the more sense and meaning you make of a death (Davis, Hoeksema, & Larson, 1998).

Bereavement and traumatic bereavement are different and the results or aftermath of both differ (Paidoussis-Mitchell, 2012). Traumatic bereavement affects the being of a person and causes ontological awareness, which results in the desire to live a more meaningful life. There are three themes that represent the after effects from this trauma that could relate to problem solving: 1. "Experiencing a powerful embodied reaction to the news of the death" (p.36). This means some felt ill, vomited, shaking, etc. 2. Loss of meaning, disorientation, and normal becomes lost forever. 3. Experiencing an ontological awakening encompassing the absurdity of the human condition. This included experiencing meaninglessness, isolation and a profound awareness of the temporal nature of being, and becoming aware of life's inevitable movement towards death. 4. Experiencing the imperative to search for meaning and re-evaluating life and priorities. 5. Experiencing a spiritual awakening that helped to create and maintain meaning. These themes could influence or resemble a more meaningful life that problem-solving professionals may experience or have experienced after trauma that now influences their problem-solving approach. How do problem-solving professionals search for meaning in the problem-solving experience?

Paidousssis-Mitchell (2012) described these themes as a "crisis of being," which changes the way a person continues to live after the trauma. The trauma leads to a deeper understanding of life. However, Paidoussis-Mitchell (2012) does address the fact that if the trauma is severe enough, then there is an issue with "being" and might need more help. Participants of this study all reported personal growth as a result. A deeper

understanding of life may influence the problem-solving professionals. What could this deeper understanding be and how might it be transferred to problem solving?

Meaning: growth during. People have been looking for growth within trauma since the days of the Bible (Hall, Canetti-Nisim, Galea, Johnson, & Palmieri, 2007). Job is a man who found meaning when he lost his health, his family, and all his worldly possessions. Hall et al. (2007) described that these scriptures describing the meaning Job found from his trials are what people use to help them find meaning in trauma and thus, religious belief can help growth. Hall et al. (2007) wrote, "They have provided people strength and comfort, a light at the end of a dark, dark tunnel" (p. 348). Hall et al. (2007) also described that there is importance placed on finding meaning that results in taking action or the meaning found in taking action, and how spirituality might help encourage growth. How action-oriented and/or spiritual are problem-solving professionals?

Problem-solving professionals may have a conscious and unconscious process using creativity. How are these problem-solving professionals reinterpreting data presented to them? Finding solutions within trauma requires transformation and creativity and innovation (Janoff-Bulman, 1992). According to Janoff-Bulman (1992), "The ability to transform the experience, to reinterpret the powerful data, is ultimately related to survivors' success in resolving their intense crisis" (p.114). This problem solving requires conscious and unconscious processing and the ability to describe and find meaning to the new reality. This involves creativity and "aha" moments. Working on problems consciously and unconsciously (also referring to dreams) allows for the mind to find solutions as the trauma forces the thoughts to the mind both consciously and unconsciously. What else happens in the problem-solving process? Our interpretations,

how we react, and what we think impacts the results of the situation. Each person can find different meaning, but can the process of problem solving be similar for those who have experience in trauma and arts?

Problem-solving professionals may be skilled at connecting old and new pieces of information. Victims of trauma connect the old and new assumptions of the world, which is considered a cognitive strategy (Janoff-Bulman, 1992). When this happens, a victim tries to make the difference between the new and old assumptions, and the positive and negative assumptions look small (Janoff-Bulman, 1992). This results in a very different perspective. However, the reference to problem solving appears to be focused on coping. There are many types of problems that can result and these problems often require more than making meaning from new and old assumptions; there is more to the problem-solving process than making meaning.

Philosophy on life may impact what is seen in the problem-solving process. An HIV diagnosis is considered a shock and can have traumatic psychological impact because it can be fatal, which can change the way a person sees their life and themselves (Davies, 1997). This type of diagnosis changes the idea that their future is theirs to create. It is the possibility of death that could be very soon in the near future or many years down the road that makes this diagnosis difficult. Davies (1997) described this as a similar "disrupted temporal orientation" and can compare to what can happen in a concentration camp. He describes this as two "ways of being" when a person is trying to exist with the idea of dying soon or many years later focusing on death or life. People with HIV have three different philosophies that are considered a healthy perspective: "living in the future," "living in the empty present," and "living with a philosophy of the present"

(p.566). The empty present perspective is the least healthy perspective because people think death then is a logical consequence. Those who "live in the present" have the mindset of "open possibilities," which means they appreciate and enjoy the present and have the philosophy that death might come, but it might not. It is described that HIV can actually have a positive effect on life and to adopt the "live in the present" philosophy when diagnosed because it can inspire a more creative perspective in life. People using the "living in the empty present" philosophy lost the will to live and that took away any creative possibilities and meaning to be found in their life. Both philosophies of living in the future and living in the present left room for meaning and creativity also called "tragic optimism," (finding meaning in the midst of tragic circumstances) as Frankl (1984) termed. This optimism or motivation can be fulfilled by doing, creating and acting on (creating artwork or volunteer work), loving, or making a connection. It is clear that being active, present, and future minded make a difference in an ability to find meaning and optimism.

The process of living through a crisis could be a process used to problem solve. Problem-solving professionals may go against the norm and see differently because of their experiences. A person in crisis looks at what life is about (Jacobsen, 2006). Living through a crisis includes a process with three parts: feeling and acknowledging emotions that the crisis reveals, remembering and exploring the details about the situation, and constructing new meaning of life. At some point during the crisis, things change and positive reconstruction occurs. It is unclear what mental functions are involved in the reconstruction. People with cancer were studied and their positive reconstruction included the new ability to go against the norm. It is at this point that the people who are

going through crisis see their adversity as something positive, needed and helpful. He or

she begins to see differently. The reconstructed meaning includes finding your true self

by using the crisis. Positive reconstruction includes the ability to go against the norm.

What is the part of this experience where we can develop this ability and use it? How do

they use the ability to go against the norm? Jacobsen (2006) wrote, "Crisis resolution

may thus lead from a disgusting and terrible experience to new insight into and opening

of the self, to a dialogue with one's basic assumptions about the world and eventually to

actual self-development" (p.50).

Finding a sense of belonging within a group is a way to survive extreme trauma

(Fine, 1990). Fine (1990) wrote,

It may manifest itself by turning one's attention inward to memories and images

of loved ones, by participating in an organized underground movement, or by

devising a tap code to communicate through cell walls to other Vietnam prisoners

of war. (p.643)

She describes how people can have limited resources but still find meaning, skills, and

value with "self-regulating activity."

The ability to shift focus, step back, find meaning and a positive future may be the

process problem-solving professionals use to change perspectives with more meaning.

Fine (1990) quoted Hamburg, Coelho, and Adams (1974, p. 413) stating how the

prisoners within a concentration camp who worked on their skills and interests in some

way were those who survived better in the long run. She also described Frankl (1984)

who instead of focusing on survival, would daydream about lecturing on the psychology

of concentration camps. Fine (1990) described this as the ability to step back, which

allowed Frankl to save himself more pain and loss and keep a part of himself whole in some way. She described this skill as ignoring the parts of the event that a person has no control over. According to Levi (1987), "It may appear as a differential focus on the good, or it may be marked by a heightened capacity for observation, that is, a period of exalted receptivity when details of events, faces, words, or sensations are retained" (p. 466). Resilience is also described as a way to "buffer the pain" and survive.

Frankl (2006) coined the term, "logo therapy," which focuses on the future. He describes the importance of living for the future as he accounts his experience being a prisoner during the Holocaust. If the people imprisoned within the camps did not have the idea of living for the future, they looked to the past, closed their eyes, and life did not have meaning. Many people ignored the challenge in front of them and basically stood still in life. The loss of the belief of the future also makes a person lose their spiritual hold and they decline. This study is looking for those people who did not stand still, who actively problem solved, and found a way to continue in life, and continue to problem solve in their health and educational role today. Frankl's description tells us that those people being studied may look to the future.

Training of the mind in trauma could relate to skills used to influence how people think about problems or how they accept them. People decide what they are to become mentally and physically; their future is not purely influenced by their environment (Frankl, 2006). Frankl (2006) wrote, "There is only one thing that I dread, not to be worthy of my sufferings" (p.65). The way the people in the camps bore their sufferings allowed them to be worthy of their sufferings. He described a coping technique used such as keeping humor at front while suffering. Suffering fills the entire soul, whether the

suffering is small or big (Frankl, 2006). This means that maybe the type of suffering or level of suffering does not matter. The fact that one suffered is what matters. Prisoners imagined the food they would eat. Frankl describes how dangerous this is because the reality was so far from it. However, the coping technique such as the contemplation of people you love most changes things; it is a refuge. The way a person accepts the suffering creates an opportunity to have "inner achievement" (Frankl, 2006).

Induces growth. The literature discusses many different qualities associated with what encourages growth and personality characteristics. The themes in this literature that induce growth is positivity, rumination whether it is positive or negative, relationships, time, taking action, creativity, and severity of the trauma. These characteristics could be associated with the characteristics that impact the problem-solving approach by the problem-solving professionals.

The literature in this section reviews many traits associated with growth, which means there could be many traits used to create the problem-solving approach. The benefits that resulted from the "Post Traumatic Growth Inventory" (PTGI) study include optimism, open to internal experience, and traits associated with being extraverted (Tedeschi & Calhoun, 1996). People who have these traits before the trauma could perceive the trauma different than others to begin with. The way a person perceives a problem could affect the approach and outcome. Also, men and women respond differently to trauma and perceive benefits differently, specifically within relationship and spiritual changes. It is reported that the circumstances under which the survivors of trauma are recovering in and the attributes and qualities of survivors are the important

factors to study while considering their perception and trauma. Should people focus on developing these traits early in life in hopes of coping with trauma positively?

Tedeschi and Calhoun's (1995) model for growth starts with the initial response to growth. People who are predisposed to growth are those who are creative. They cite Strickland (1989) and write that those people are also "able to let go of conventional approaches to problems and reconstruct their situation; able to bring order out of chaos; and having a tendency to act upon their environment while regulating behavior within limits" (p.88). However, the trauma can also encourage more creativity in a person (Tedeschi & Calhoun, 1995). This means the trauma can enhance and refine strengths that a person has before the trauma. There is so much focus on growth, that the studies lose focus on a specific skill set, such as problem-solving approach. These skills listed by Strickland (1989) and Tedeschi and Calhoun (1995) are qualities that begin to describe what could be part of an approach to problem solving, which are also very similar to the qualities coming from aesthetic experiences.

The second principle in the model by Tedeschi and Calhoun (1995) is how people evaluate. Those who are being optimistic, hardy, efficacious, and internally controlled cope better and more quickly. The rest of the principles include emotional distress, rumination or emotional focus, influence from others for support, initial growth and new understanding, and more growth, which also includes more reflection. This extra growth happens to those who are more creative. This allows for more creativity to be developed and can be found within relationships that have been developed because of their experience in trauma. Growth changes include self-perception, philosophy of life and interpersonal relationships (Tedeschi & Calhoun, 1995). How do those who are creative,

use their creativity after the trauma? Do they use it differently? It is possible that the professionals are creative and might use their skill of creativity differently as they have transformed from trauma. According to Tedeschi & Calhoun (1995) the seven principles of posttraumatic growth are:

> Growth occurs when schemas are changed by traumatic events (assumptions and beliefs), certain assumptions are more resistant to disconfirmation by any events, and therefore reduce possibilities for schema change and growth, the reconstrual after trauma must include some positive evaluation for growth to occur, different types of events are likely to produce different types of growth, personality characteristics are related to possibility for growth, and growth occurs when the trauma assumes a central place in the life story, wisdom is a product of growth. (p.99)

This means that to make the changes and allow growth, a person must find a way to positively evaluate their life and perspective after the trauma, and the trauma must be part of the person's life. Do problem-solving professionals use their trauma in a positive way to influence their problem-solving approach?

In addition to how people use their trauma and personality traits such as positivity, relationships and resources, the factor of time, also influences growth (Park & Murch, 1996). How could the factors of time be part of the problem-solving experience? What do problem-solving professionals take time for when working on a problem with clients? The Stress Related Growth Scale was used to discover that the level of stress of the trauma, satisfying social support, acceptance, positive life experiences, and positive reinterpretation coping skill are all related to stress related growth (Park & Murch, 1996).

SRGS reveals that the influence of social relationships, coping skills, and personal resources show positive change. Park and Murch (1996) discuss how the amount of time that has passed before assessment can change results. It is preferred that there be at least a year after and some participants chose to reflect on events that happened five months prior to survey.

People can learn from their crisis even if their coping strategies were unsuccessful (Park & Murch, 1996). Growth is also related to how fulfilling social support was, the number of social resources, increase in positivity, and positive affectivity. Being open to learning could be more important to experiences because learning can happen whether or not a person copes successfully. How important is learning to the problem-solving process, and does this take a certain amount of time to occur?

Positivity. People are internally drawn to rebuild their reality toward growth (Joseph & Linley, 2005). People will begin to search for meaning and find significance, which requires positive accommodation of the trauma information being processed. However, this process can become negative. There are three different outcomes for people who are finding psychological resolution including: assimilation to pre-adversity mindset, experiences become negatively accommodating into their life, and lastly, experiences can be a positive growth accommodation in their life. Assimilation is more common than accommodation. People who accommodate information from their trauma instead of assimilating back to their pre-trauma mentality, experience growth (Joseph & Linley, 2005). It is possible that problem-solving professionals accommodate information from their experiences in their approach to problem solving and allow growth from their trauma experiences or other problem-solving experiences.

Focusing on positive aspects that can be found in the midst of adversity is considered a good coping skill (Thompson, 1985). The ability to focus on the positive is related to coping well, but it is unclear if one causes the other. In a study where participants lost their home and property due to a fire, the people who focused on the positives to be found coped better immediately after and a year later (Thompson, 1985). Re-evaluating an event such as a fire from something negative into something positive is connected to the level of coping occurring. People who blame others for the adversity do not cope as well and become negative. People who immediately focus on the positive aspects following an adverse event, blame others less. It is noted that the reverse could be happening; good coping skills could cause more positive thinking, or people might have the characteristic of being more optimistic before the event. The people who lost less in the trauma could be more positive (Thompson, 1985). Positive and negative emotions are present during adversity and positive emotions does not mean a person will not understand or adapt to their adversity in a negative way (Aspinwall & MacNamara, 2005).

Seeing benefit could allow more opportunity in problem solving. The benefits perceived from women who have been sexually abused include self-protection (more aware, etc., protection of their children, knowledge about child sexual abuse, which included empathy towards others who have experienced child abuse), and becoming a stronger person (McMillen, Rideout, & Zuravin, 1995). The type of abuse is not related to the benefits. Those who found a lot of benefits from the experienced abuse also exhibited specific adjustment characteristics including less relationship anxiety, high self-

esteem, and ease depending on others. It is noted that the benefit of growing strong as a person is also found in the study by Affleck, Tennon and Rowe (1991).

Problem-solving professionals might be prone to taking immediate action. The settlers in Gaza were studied because of the terrorist attacks on them in addition to the fact that they were forced to leave. Hall et al. (2007) described their situation as catastrophic. It was found that the people who resisted in the protest against the evacuation of Gaza used PTG and included action to resist acts as a protection from developing PTSD. "Those who turn beliefs into action experience a protective effect of PTG " (p. 356). The Gaza settlers studied show that PTG is an indication of positive adaptation when action is included. Those who have high self-efficacy use PTG more, however those people do not have positive effects from their PTG. People with low self-efficacy using PTG experience negative effects. Hall et al. (2007) questioned whether PTG could lead to lower psychological difficulties at a later time after the trauma. PTG can have negative and positive effects and it is pertinent to turn PTG into action. PTG is a process through action growth, using their cognitions of benefits with action. When meaning is found, or PTG, it must be associated with action and behavior that continues after the trauma. If this happens, it is theorized that it could lead to recovery. Growth and transcendence from trauma leads to the reduction of symptoms.

There is also the dynamic with the trauma survivor and the clinician to consider, just like the dynamic with the problem-solving professional and their clients; there could be a similar relationship. There are four approaches that clinicians are encouraged to use with their clients to find positives within adversity with the acronym REEP; reflection on possible benefits, encourage self-assessment of life and who they are, exploration

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benefits of pain, and plan for changes (McMillen, 1999). This last step involves problem solving (McMillen, 1999). All of these steps could be considered part of the problem-solving process that people could use in their life. The artist and trauma survivor could use all of these skills in their approach to problem solving on their own without the clinician or use it within the problem-solving process. The process of reflection does appear to be a large part of the problem-solving process discussed by many theorists, including Dewey (1910).

Problem-solving professionals could have an overly positive view on reality towards life and problems. The ability to distort reality into an overly positive reality changes how a person reacts to adversity (Taylor & Brown, 1988). This is slightly different than what Frankl (2006) discusses as he warned that it is dangerous to imagine to far from what reality is. Taylor and Brown (1988) write that having an overly positive perspective, also known as positive illusions, towards yourself and adversity are considered to have a positive effect on the ability to adapt to difficult circumstances within adversity. A person who has an illusionary positive self-efficacy, positive view of self, and a positive view of the future will be happier, more productive, able to produce creative work, and more compassionate in the face of adversity. If a person is able to make creative positive meaning from a negative situation, it can create growth and change and alter a human's capacity. Positive illusions have a direct effect on intellectual functioning. Those with positive illusions minimize the negative and allow them to see more positive or see them in the best light (Taylor & Brown, 1988). How do problem-solving professionals see the negative?

Problem-solving professionals might need many alternate plans to find positive outcomes. People who make alternative plans to achieve goals find more benefit to adversities experienced (Affleck & Tennen, 1996). People with chronic pain have much higher moods when they remember the benefits that the adversity brings (Affleck & Tennen, 1996). This means that it is possible that people could find benefits from their adversities.

Those suffering from severe medical problems find benefits and positive gains because of their adversity (Affleck & Tennen, 1996). People who remind themselves of benefits when their illness pain is severe find that their mood is more manageable and pleasant. The ability to find and plan alternative routes to find success is related to benefit reminding (Affleck & Tennen, 1996). This would require problem solving. How successful would the problem solving in this situation be if the people in their study had experienced trauma and were also artists?

People who focus on the positive when experiencing adversity and use positive reevaluation of the situation include the following content within their psychological process: disremembering the negative, focusing on benefits that happen because of the trauma, reassessing expectations of what a person desires from the event, compare other people and their situation with adversity, or imagining the worst alternative to their situation or trauma (Thompson, 1985). People who focus on the positive use all of these techniques listed. This study found five positive themes for the content in the process of being positive: gratitude for how helpful people were, relieved that the injuries were not worse, relieved that the damage to possessions was not worse, learning a lesson from the

adversity, and finding a material benefit had occurred such as obtaining new possessions (Thompson, 1985).

Distortions. Adjustment to trauma results in either a small amount of disillusionment and hope or a great deal of disillusionment and despair (Janoff-Bulman, 1992). The magnitude and distress associated with problem solving within trauma as compared to scientists who work on finding solutions, is very different. The problems confronted in a trauma situation have much more emotion attached to them. The skill of denial allows a person to break down the problem-solving tasks and address problems within trauma (Janoff-Bulman, 1992). It is possible that problem-solving professionals use the skill of disillusionment as a positive way to find solutions.

Positive illusions could be used to find solutions to problems. Positive illusions can be maladaptive, but are also considered a healthy route to coping and adjusting to trauma (Taylor & Armor, 1996). Cultural traditions have a large influence on how people perceive situations and adjust, additionally, cultural beliefs define boundaries from within people can see and psychologically adjust (Taylor & Armor, 1996). Positive affective phenomena can influence a positive transformation. Positive affective phenomena and phenomenological expression are part of the best process of adaptation (Fosha, 2009).

Deliberate rumination of a problem and benefit reminding could lead to positive results in problem solving. Deliberate rumination is when a person purposefully thinks about the event and the effects after, then tries to make sense of it, and contemplates how it relates to their world or truth (Triplett, Tedeschi, Cann, Calhoun, & Reeve, 2012). Deliberate rumination leads to post traumatic growth. Adversity that moves a person to question their current world and move a person to cognitively try to figure out the

relation of the event and their current world have a higher chance of producing post traumatic growth. Increased intrusive rumination was associated with more distress. Triplett et al. (2012) deducts that deliberate rumination can lead to post traumatic growth, which could then lead to a more meaning and satisfaction. This deliberate rumination could include benefit reminding, which leads to growth (included in Affleck & Tennon, 1996) and thus, lead to the discovery of more meaning and purpose in life.

Those who were able to make sense of their new world were able to achieve posttraumatic growth with a "higher level of meaning in life" and become more satisfied with their life (Triplett, Tedeschi, Cann, Calhoun, & Reeve, 2012). Deliberate rumination about the competing or destroyed beliefs should be encouraged and possible PTG should be discussed to result in a higher sense of well-being and satisfaction. However, this study only focuses on specific traumatic events instead of cumulative trauma that might have lasted longer than one event. Well-being is correlated to the sense of meaning in life (Triplett, Tedeschi, Cann, Calhoun, & Reeve, 2012). This study like many others had each person rate the severity of the trauma, but what are the participants rating their trauma on? Are they comparing it to a specific high-level trauma described?

Severity. People who experience adversity obtain different levels of benefits from the adversity (McMillen, 1999). The severity of the trauma and the type of trauma influences the positive outcomes. This also includes demographics such as age, gender, personality and class. There is an unknown level of trauma needed to trigger change that can result in a positive.

When all studies are compared, even though they use different scales, the more severe the harm and threat perceived the more adversarial growth (Linley & Joseph,

2004). However, it is unclear as to how the level of trauma relates to this. It is also recognized that there is not a clear definitional difference between coping and adversarial growth (Linley & Joseph, 2004).

Technological, natural disaster and criminal disasters were studied to discover the types of benefits that resulted (McMillen, Smith, & Fisher, 1997). Survivors of a tornado, a plane crash, and a shooting were interviewed to evaluate mental health and perceived benefit. Survivors of a plane that crashed into a hotel, saw the least amount of perceived benefit. Perceived benefit was 55% one month after the crash and 35% three years after. This could have to do with the fact that the researchers interviewed employees of the hotel in addition to the plan crash survivors. However, the employees were affected because some of the employees died. The tornado survivors saw the most benefit at 90% one month after the tornado and 95% three years after. Perceived personal growth continued to increase over the three years, but less reported perceived benefit. It is possible that there is a difference then between growth and benefit. Many participants may see a difference between these concepts. How much time is spent on problem solving and how do problem-solving professionals see growth and benefit?

Terrorism, disaster and war are traumatic events that can be difficult to study because so many people can be affected with a different level of exposure (Hall, Canetti-Nisim, Galea, Johnson, & Palmieri, 2007). This is why the qualifications for that study includes severe trauma and loss and includes those that have experienced more than "an event." Israeli Jews and Arabs were studied because of the traumatic terrorism events happening in Israel. The more exposure to terrorism in conjunction with the coping skill of finding posttraumatic growth, the more PTSD was found. This means that those who

have more exposure to terrorism and do not use PTG as a coping strategy have better

mental health results. Using PTG increased PTSD symptoms. It was noted that this could

mean people with PTSD use PTG more. This could relate to the idea that the more severe

a trauma is, the more growth there will be (Tedeschi & Calhoun, 1996).

Tedeschi and Calhoun (1996) created a measurement of perceived benefits from

multiple different kinds of trauma called the "Post Traumatic Growth Inventory" (PTGI).

This measurement scale only measures specific types of benefits, but what other kinds of

benefits can occur throughout a person's life because of trauma when faced with

adversity? More specifically, their test for their measurement scale did not study events

described at a severe level. Events such as academic problems were included with

injuries and relationship breakups. The severity of events could change the outcomes and

the problem-solving techniques developed. Frankl (2006) noted that suffering at any level

is suffering, but it is not clear if the problems such as academic problems had true

suffering involved. It was described that Tedeschi and Calhoun (1996) believed if people

with more severe trauma were tested, those people would have reported more benefits.

People who faced the possibility of death saw more growth after the disaster

(McMillen, Smith, & Fisher, 1997). This could mean the more trauma the more growth.

Survivors who saw benefits one month after the disaster were less likely to develop

PTSD when interviewed three years after the disaster. Those who saw benefit also

recovered quickly from mental health changes. People who have mental illnesses prior to

the disaster perceive more benefit. It is noted that this means that those survivors could

have had a worse life prior to the disaster than others and those people were the ones you

saw more benefit because they had the most to gain from the experience. It is also

concluded that different benefits resulting from disaster may correlate with only certain parts of adjustment after the disaster. The survivors from smaller towns saw more benefit, which could be because smaller towns come together more or the event is perceived differently as a town. This could also be because different disasters require different aid such as tangible food for a natural disaster verses the support needed after the criminal disaster. The tornado was in the smallest town and saw the most growth and saw a benefit of closeness.

Coping. The literature shows coping as growth but also as inducing growth. PTG is associated with the skills used in coping (Tedeschi, Park, & Calhoun, 1998). Trauma can enhance coping skills (Aldwin & Sutton, 1998). Within coping, a person considers short-term and long-term benefits. Levels of openness are affected by coping skills. Stress can result in positive long-term outcomes (Aldwin & Sutton, 1998). However, some people do more than cope; they transform (Aldwin & Sutton, 1998).

There are many different coping strategies reviewed in the literature that is linked to growth. Coping strategies could be linked to positive problem-solving outcomes. Cancer patients who were actively coping had changes in their priorities and daily activities (Collins, Taylor, & Skokan, 1990). Changes in world and self-views were not directly correlated to change after trauma and coping because there were negative and positive views found. Problem focused coping, cognitive avoidance or wishful thinking, positive focus behavioral escape or avoidance, and distancing were all coping responses used. Coping encourages positive change after trauma except for distancing. Coping allows people to find benefit. According to Collins, Taylor, and Skokan (1990), "These changes are consistent with the idea that people find benefit following a victimizing event in areas

of life that they are able to influence through cognitive and behavioral coping methods" (p.281).

Coping strategies could be part of determining problem-solving skills or be part of a problem-solving approach. Active coping and planning coping were categorized as problem-solving coping, and it was found that problem-solving coping was only associated with the positive-by-product increased community closeness. McMillen and Cook's (2003) study shows then that there is a draw to problem solving for some people in the way that they cope. This study is aiming to find those people who began using and developing more problem-solving skills, but are using these skills on more than just a coping level.

Carver and Scheier (1989) propose a new scale to assess which coping strategies people use to manage stress: active coping (action taken to remove the stressor), planning (thinking about action strategies), suppression of competing activities (avoiding distractions), restraint coping (waiting to take action until it is time), seeking social support for instrumental reasons (obtaining advice), seeking social support for emotional reasons (moral support), positive reinterpretation and growth (manage emotions towards the positive), acceptance (accepting reality), turning to religion (finding support in religion), focus on and venting of emotions (the focus is on distress), denial (making the event smaller than it really is), behavioral disengagement (giving up), mental disengagement (mental distraction from the stress), alcohol disengagement (using alcohol to distract). Functional coping strategies are linked to positive personality characteristics. Active coping and planning are associated with the personality trait of being positive in adverse situations including self-esteem and hardiness. Seeking social support can have

good and bad consequences. Denial and behavioral disengagement are associated with being negative about the trauma (Carver & Scheier, 1989).

Using more than one problem-solving strategy could yield more positive problem-solving outcomes. People who used more than one coping strategy found more benefit (Collins, Taylor, & Skokan, 1990). Flexibility of coping is related to the idea that a single strategy of coping brings single benefits, and trauma brings many different problems so many different strategies will help with the different types of problems occurring. Flexibility could be an important skill to the artist with personal trauma experience problem-solving approach because this study is focusing on the difficult and complex problems. Importance after the trauma was given to being more aware to needs and feelings of others and interpersonal exchange.

Creativity. Art can transform trauma while the art brings a new perspective to the trauma, and the artist who experienced the trauma can view their trauma experience. The process of creating art out of trauma encourages reflection and begins the process of creating meaning and giving form to the trauma with boundaries (Richman, 2013). Is this what an experienced artist does mentally with their conscious and unconscious way of seeing and thinking to approach adversity and uncommon problems? Do these people create an artistic approach that changes the way they see the trauma and the way they address future trauma and uncommon problems to change lives? Richman (2013) relates creativity to the definition of self-acceptance from Bromberg and suggested that it is the ability to be many things and still be you. Richman (2013) described how a creative self emerges from those who are in trauma to cope while creating art using symbolism, representation, and reflection, referring specifically to those within concentration camps.

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Laub and Podell (1995) wrote, "The art of trauma, because of its indirect unaestheticised and dialogic nature, may be the only possible medium for effective representation of trauma" (p. 991).

The creation of art is helpful for discovery during and after trauma (Richman, 2013). Music helps work through trauma, specifically singing. Richman claims that the tragedies can add texture or added qualities through emotion to the voice. Creative expression allows people who go through trauma to transcend the trauma and self in addition to creating meaning.

Richman (2013) explained that those who are resilient within their adversity or trauma use their imagination within daydreams to thrive, specifically referring to Frankl (2006). Richman (2013) wrote, "The narrative that emerges through artistic self-expression helps to organize experience and give it a context and a meaning" (p. 369). Those who are resilient and find ways to cope or adapt during critical tipping points have the ability to cognitively transform the trauma (Tebes, Irish, Vasquez, & Perkins, 2004). Tebes et al. (2004) agree with many theorists that the intensity of the trauma does not affect the ability to cope and cognitively transform. However, could the intensity of the trauma affect the level to which the person has the ability to cognitively transform into? This transformation also shows periods of growth and success. However, these thoughts on cognitive transformations were not studied with long-term stressors or long-term adversity. The participants did something with their experience in life and let it affect what they see and think, which is different than others (Tebes, Irish, Vasquez, & Perkins, 2004). Could this be considered transformative?

This literature review has discussed how to define trauma and the many levels of suffering associated with growth, the debate about measuring trauma, and the growth that occurs during and after trauma. Growth includes many different themes including relationships, new skills, positive changes in self, the role resilience plays, meaning constructed, what qualities that induce growth such as positivity and benefit finding, how distorting information can actually be a good thing, and how the level of trauma changes the amount of growth. The literature reviewed how coping is considered a growth skill but also can induce growth from trauma. And lastly, the literature discusses how creativity plays a role in trauma and growth. There are qualities of growth sprinkled throughout each section covering many different areas. How do all of these skills and qualities from the trauma experience relate to the problem-solving approach used by problem-solving professionals who self-identify as artists and have experience in trauma with chronic struggling?

The Overlap of Arts and Trauma

The literature on the arts and aesthetic experiences includes many qualities that are part of the arts experience or can come as a benefit or result of the experience. The researcher has analyzed and organized all qualities and skills found and identified in the literature in a table below. Many of these qualities and skills are found to be part of the problem-solving process used by the professionals. Some of these qualities and skills have dual roles and can be a quality of the experience and a learned skill.

The researcher has also analyzed the qualities and skills derived from the trauma literature that are used to describe the results or benefits from the experience to create the table above. This is not an exhaustive list because the theorists have many different

versions of quantitative studies with tables, but it is a list that has highlighted some of the

important qualities and skills to this study. The list includes qualities associated with

growth after trauma, benefits, positives, coping skills, change in self, recovery themes,

and many more.

Table 1. Qualities from the Aesthetic Literature.

WAY OF SENSING	WAY OF THINKING
Refined senses	Go beyond the letter of the law
Uses all senses	Subtle discrimination
Sensitivity to tension and harmony	Create ideas never thought of and unknown
Allow sound and emotion to influence	Heightened mind connecting ideas and new emotions
Consciousness of body	Making connections to other subjects and the problem
The senses include how their mind and body perceives and is part of the experience	Fully present
Spiritual-beyond the physical body	Focus on process
WAY OF SENSING	**WAY OF THINKING**
Explore deeper past sensory instinct	Zero judgment
Perceive the textures and contrasts in experiences	Deep thinking
Discernment	Reflective
Seeing the depth to experience and interaction through all the senses	Rational thinking
Perception skills that allow deeper experiences	Higher consciousness-heightened state of mind
Physical perception	No routine/abstract formula
Feelings and Intuition	Curiosity
Intuitive judgment	Do not focus on the problem
Spiritual inspiration	Intellectual freedom
	Faith
WAYS OF SEEING	Emotional intellect
Seeing emotion	Unconscious/conscious processes
Seeing the big picture	Intellectual/knowledge(understanding of the experience)
Seeing the details	Attitude
Seeing meaning	
See beyond what is currently there	**WAY OF LEARNING AND COMMUNICATING**
See more than one answer	Open to new learning and knowledge-experiential and theoretical
See beyond ones own experience	Inner dialogue and verbal communication-networking
Train the mind to see qualities into the experience	Expressive communication
Experiences not bound to one type	Exploration
See more dimension	Intelligent evaluation
See past initial senses and instincts	Asks questions
See more than what is in front of them	Emotional (creating emotions)
	Open to opportunities for more than one reaction or idea
WAY OF MEANING MAKING	Communication(skill to bring together the emotional intellectual with the visual)
Meaning making between art and problem-or is the problem the art-inquiry	Perceptual (visually engaging)
Focus on discovering meaning	
Use life experience to understand and make meaning	
Understanding the qualities within experiences	
Imagination and sensory intake	
Use art experience and personal experience	
Use and know how to create aesthetic experiences	

The coping skills identified could be used on a larger problem-solving scale to do more than cope. The skills developed and identified to be part of coping will be considered part of the experience and skills to be listed as developed towards a problem-solving approach. This study is not looking at this through the eyes of trauma and coping. This study is looking at the bigger picture of problem solving within trauma and chronic struggling.

Table 2. Qualities from the Trauma Literature.

WAY OF SENSING	WAY OF THINKING
Capacity for observation-sense details, sensations, words, visuals	Remember the benefits
Empathy	Exploring benefits
Stronger connection	Explore
Religious belief=faith	Optimism
Aware of needs of others	Gratitude
Heightened adaptation-psychological functioning life awareness	Reflection
Spirituality	Deliberate rumination or thought
Insights	Contemplation of the people you love-memories
Sense of purpose	Go against the norm or traditional
Increased compassion	Order out of chaos
Connect with others	Creative
Perceptual memory-sensory experience	Do not imagine far from reality
Wisdom	Connect the new and old
Feeling of compassion	Live in the present
	Focus on relationships
WAY OF SEEING	Focus on future
See more hope	Does not focus on problem
Coping skills-think of short term and long term benefits	Alternative plans to achieve goals
Philosophy of life	Active planning
View of the world	Flexibility
Positive view of self	Emotional intellect-act while controlling behavior
Saw something different	Accepts suffering and let go of control
Ability to step back	Compare other people and their situation
See more dimension	Active coping
See deeper	Resilience
See details	Anticipate
Redefine expectations	
Priorities	**WAY OF LEARNING AND COMMUNICATING**
	Emotional expressiveness
WAY OF MEANING MAKING	Ability to describe meaning
Growth-meaning found with creativity, suffering and love	Open to internal experience
Finding meaning in action	Learning a lesson from adversity
Search for meaning	Better understanding of life
Global and situational meaning	Creative communication
Create positive meaning	Self disclosure
Philosophy of life	Learning
Positive reinterpretation	Acknowledging emotions

Table 2. cont.

WAY OF MEANING MAKING	WAY OF LEARNING AND COMMUNICATING
Meaning in self regulatory activity	Extraverted
Construct new meaning	Conscious and unconscious change
Find meaning in trauma and use it as part of life story	
RELATIONSHIPS	**SELF**
Social support	Find true self
Family closeness	Self efficacy
Community closeness	Self observing-take care of self
Sense of belonging	Survivor pride
Interpersonal relationships	Self reliance
	Self assessment
	Self capacity
	Self perception
	Self improvement-skills and interests
	Vulnerability
	Stronger person

The researcher took Table's 1 and 2 to create Table 3 to show the correlation to trauma and arts experiences and the skills that can result. This table shows the overlap of the skills and qualities that are the same in both: Table 1. Aesthetic Qualities and Table 2 Trauma Qualities. This table could be a list of skills and qualities related to the problem-solving professionals experience and approach being studied. There are many skills and qualities from both tables that can work in conjunction with each other from the same categories such as being fully mentally present in the moment (from Table 1. Aesthetic Qualities) and living in the present (from Table 2. Trauma Qualities).

Table 3. Aesthetic and Trauma Quality Overlap.

WAY OF SENSING	WAY OF THINKING
Spirituality-beyond the physical body	Go beyond letter of the law/go against the norm or traditional
Insight/intuition	Making connections/new and old/to other subjects and the problem
Heightened awareness or sensitivity to the sensory experience	Reflection
	Emotional Intellect
	Do not focus on the problem
WAY OF SEEING	
See big picture	**WAY OF LEARNING AND COMMUNICATING**
See deeper/more than what is in front of them	Open to learning
See more dimension	Exploration
Ability to step back/see beyond own experience	Expressive communication

Table 3. cont.

WAY OF MEANING MAKING	
Find meaning in the life experience	
Search for meaning/discovering	
Using the art/trauma experience	

CHAPTER III

METHODOLOGY

This research analyzes two factors and their influence on problem solving; being an artist with experience in trauma. There are magazine and journal articles that identify how people in management leadership positions (Kanter, 2011; Keelin & Arnold, 2002), or those with an educational role (Biaocco & Dewaters, 1998) begin their process of problem solving. There are few studies that address the positive effects from trauma or how trauma and experience as an artist enhance specific skills, such as problem solving. There is no research that analyzes how people who have experienced trauma now address problems in their current life or how artists problem solve in their life outside of their art. In addition, there is no research that analyzes how experience as an artist and experience in trauma influences a person's approach to problem solving. This study researches how people with experience as an artist and with experience in trauma approach the problem-solving experience. This research is important because these professionals may have a different approach to the problem-solving process that could be taught to others in the health and education fields.

The methods, skills, and perspectives that are used within the problem-solving experience are explored. The people in this study were asked questions about their approach to problem solving, and were also asked to describe their most successful

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problem-solving experiences to obtain a better view of their methods. This study uses

phenomenology and interviews to understand how arts and trauma influence a

professional's problem-solving approach. People with a background in the arts who are

using their experience in trauma in relation to approaching problems is a skill that could

be used by many problem-solving professionals in health and education. This skill may

be key to a higher-level thinking, seeing, and communicating when approaching

problems. To discover the qualities and skills that professionals with an educational role,

a background as an artist, and trauma experience use within their problem-solving

experiences, it is pertinent to use in-depth interviews.

This chapter reviews the research methodology that is used as the foundation for

this study, which is a qualitative phenomenological study. The method for conducting the

research will then be reviewed including the procedure, sampling, participants, etc.

Lastly, the form of data analysis is discussed.

Qualitative and Phenomenological Study

Qualitative methods are used for more complex questions where the relationships

are unclear and interpretive meaning is part of the process (Logan, 1997). This study has

a complex question as it is unclear how the variables, artist and trauma, relate to a new

problem-solving technique. Qualitative research will allow the researcher to discover

how artist and trauma experiences may create new meaning within the problem-solving

experience. Qualitative data research focuses on subjectivity, the free will of the

participants, and diversity (Marecek, 2003). This research method allows the participants

to reveal their perspectives and qualities that relate to problem solving allowing the

participants to describe their diverse perspectives. Qualitative research focuses on having

an open mind so that the data can reflect the participant's perspectives (Glesne, 2011). Researchers look for patterns and descriptive data analysis. Analyzing for descriptive patterns allowed the researcher to discover the perspectives within the data.

The phenomenological approach is used to research what human beings experience and how they experience it (Wertz, Charmaz, McMullen, Josselson, Anderson, & McSpadden, 2011). Phenomenology is used to understand the first-person experience and their view (Marshall & Rossman, 2006; Wertz, Charmaz, McMullen, Josselson, Anderson, & McSpadden, 2011). The researcher wanted to understand the participant's view on their problem-solving experiences to discover their approach to problem solving, and if trauma and art experiences influence problem solving.

Husserl begins his exploration of the theory of knowledge by questioning the possibilities of cognition. Husserl (1964) described how he wants to understand the essence of how people give meaning or "see" objects, and the possibilities of how far the cognition and meaning can reach. The researcher was looking for how people see problems and the meaning given to the problem-solving experience. The researcher looked at essences of the approach to find qualities, characteristics, and skills that can be identified but also looked at the problem-solving professional as a whole. Based on the literature, it is unclear if the trauma and arts experiences consciously or unconsciously impact by way of the participant giving meaning to them. The intention is to discover if their experiences helped them develop skills, and if they are able to consciously identify those and see the meaning related to their problem-solving experience that connect to the arts and trauma experiences. Phenomenology for Husserl was to look at how transcendence occurred in the cognitive sense between objects and the experience

occurring; phenomena. The researcher looked for meaning and transcendence between the problem-solving experience and the arts and trauma experiences, in addition to looking for points of transcendence in the problem-solving experience and find where the participants give or develop meaning. To understand these ideas, we must "trace all forms of givenness and all correlations" (Husserl, 1964, p. 10). The point at which Husserl begins to analyze how people give meaning and "see" is where the researcher begins the search to find how these aesthetic qualities and the abilities emerge, how their intricacies are taught, and discover how trauma and arts allow a person to see something different.

Gadamer (1975) described that a person should hold back judgment and purely look at the qualities within the experience and explore meaning with sensory and intellectual freedom. It is important to separate cultural or any other meanings to see the pure art or experience. This is the perspective that the researcher is using. The researcher looked without judgment and explored meaning and experiences in their pure form as the interviewees described them. The researcher used all senses and inquired about the interviewees sensorial experience. Phenomenology creates a framework to understand sensation according to Merleau-Ponty (1962). Merleau-Ponty (1962) explains how he interprets experience from sensation. How can people be taught to feel more from this experience of sensation? Merleau-Ponty (1962) described how sensation could be experienced differently for every person, and that there is not "pure sensation". Merleau-Ponty wrote, "pure sensation will be the experience of an undifferentiated 'impact,' instantaneous, an atom of feeling" (p.3). The participants were asked personal questions to understand how they personally experience problem solving, instead of inquiring about

it as a methodical process. Questions of thoughts and feelings on their experiences were asked. Merleau-Ponty gives a description of colors and shapes that are seen and explains how this is a perception in itself and has meaning. How can this expansion of perception be taught, without constructing their meaning for them? He also explains that we will never know what a "field of vision" is. This research aims to understand how the participants see the different facts of their experiences, aspects of problem solving, and their client that they work with.

In phenomenology, the understanding of the meaning created is understood through expression and not signification. However, is it possible to allow this expression ability to expand with the seeing of aesthetic qualities within the context of seeing the bigger picture and how the details correlate? Qualitative research with phenomenological methodology is used to explore the depth of experience, expression, and meaning associated with the participants' arts, trauma, and problem-solving experiences.

Method

The method used to research problem solving was interviews. The method section describes how this research was conducted and it reviews; semi-structured interviews and data collection, procedures, sampling, population, informed consent, the timeline, reflexivity, limitations, validity, data analysis, and interview questions. For the purpose of this study, the focus of this research is to study the essence of the problem-solving experience with professionals who have trauma experience and experience as an artist. Gadamer (1975) described how dialogue is important to understanding the aesthetic experience and phenomena; therefore, this study included semi-formal interviews with

professionals. Semi-structured interviews were used to allow questions to emerge during the interview (Glesne, 2011).

The dialogue in the interviews, according to Moustakas (1990), should be in-depth between the researcher and themselves and the researcher and the interviewee. The dialogue should come naturally and allow the participant to tell their story, or in this case, their experience. The interview should also include informal conversation, spontaneous questions, and a few guide questions. The informal approach encourages participants to disclose and express and the dialogue in the interview will allow for co-sharing. This allowed the researcher to find possible problem-solving themes to discover these participants' (those with arts and trauma experiences) personal way of problem solving. This also allowed the interviewer to better understand if specific qualities from the trauma and arts experiences influence on a conscious or unconscious level. The participants were not always able to consciously acknowledge the influence of the arts and trauma experience, and the researcher used the literature on trauma and arts and the tables 1, 2, and 3 to identify qualities and skills related to trauma and arts.

Roulston (2010) explains that, "The purpose of this kind of interview is to generate detailed and in-depth descriptions of human experiences" (p. 16). She goes on to explain how the questions for the interview need to aid in discovering feelings, perceptions, and understandings. Because of this, Roulston (2010) stated that open-ended questions are the most appropriate form to use. The feelings, perceptions, and understandings of the participants were explored to understand their problem-solving experiences. The interview should start with a description of the experience (Giorgi and Giorgi, 2003). The interviews in this study started by the participant briefly describing

their problem-solving experiences and approach. Then the participants were asked to describe their most successful problem-solving experience. Participants were asked to rate the severity of their trauma experience with chronic struggling in addition to how experienced they are in the arts and as an artist on a Likert scale. The Likert scale tables are shown below.

Table 4. Trauma Scale.

[green]	1-2=Mild
[yellow]	3-4=Moderate
[red]	5-6=Severe

1. On a scale from 1 to 6, please rate how severe is your trauma and chronic struggling experience?

Table 5. Arts Scale.

[green]	1-2=Mild Experience/Untrained Hobby
[yellow]	3-4=Moderate Experience/Trained Hobby/Amateur
[red]	5-6=A Great Deal of Experience/Professionally Trained

2. On a scale from 1 to 6, please rate how experienced you consider yourself in the arts and as an artist?

Two interviews, one hour each allows for the depth that Gadamer (1975), Roulston (2010), Giorgi and Giorgi (2003), Moustakas (1990) and Glesne (2011) describe. This also gave the researcher a chance to reflect on the first interview and create follow up questions to dig deeper. This ensures validity, as discussed in the validity

section below, with prolonged engagement and the ability to compare the two interviews

for each person Creswell (1998).

Procedure

IRB approval was obtained prior to the interviews. After IRB approval was given,

the researcher began the search for participants. After participants were found, they were

asked to sign the IRB consent form, fill out the trauma and arts level survey, and then set

up a time to interview.

Sampling. The researcher initially used the requirements listed below under

population to match the profile of those who can be identified as an ideal participant

(Roulston, 2010). This can be described as purposive sampling (Pyrczak, 2008). There

are specific characteristics or requirements for the participants. Participants were given

the selection criteria description with the email, internet messaging or flyer and were

asked verbally or through messaging if they fit the descriptions of all three areas

including: experience in trauma with chronic struggling, artist, and experience as

problem-solving professionals in an education or health field. There is a statement listed

under each section that is a shortened description of the category and they were given the

opportunity to read the in-depth description to make sure they were a match. To find

participants, the researcher used the snowball method and allowed participants to be

referred to the researcher from the initial participants found (Roulston, 2010). The

researcher started by asking people that she knew, who then recommended others. She

asked people face-to-face and used Internet tools to contact people she knows. There

were ten people included in this study, and saturation was reached. This study required

specific characteristics for its participants, which made it difficult to have a larger sample

(Pyrczak, 2008). Ten participants were used to allow for more in-depth interviewing and analysis. Potential participants were emailed the description of the specific characteristics or requirements and identified if they fit that description.

Participants

There are four criteria used to select participants for this study. The four criteria are:

1. Problem-solving professionals who work within the health and education fields.

2.   A professional who practices problem solving with their clients; a problem-solving professional.

3. A problem-solving professional's personal experience in trauma with chronic struggling.

4. A problem-solving professional's experience in the arts as an artist.

Figure 1 depicts the four criteria of the problem-solving professional being focused on in this study.

Participants must be adults older than 25. This allowed the participants to have at least started their education and a few years in the field before they were interviewed, but also include people who were retired, but have worked in their field for many years. This section will describe the population qualifiers this study required.
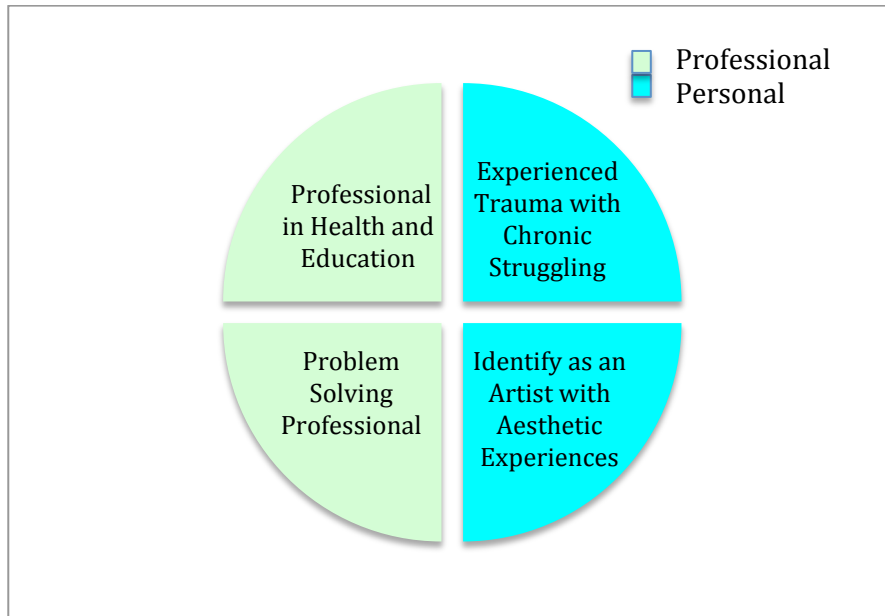
Figure 1. Problem Solver Qualities. This figure illustrates the four professional and personal criteria the problem-solving professional has in order to be included in this study, and highlights the two qualifiers these participants have.

Experience in trauma with chronic struggling. Participants must have experienced trauma with chronic struggling that lasted for a minimum of two years and occurred at least three years ago. Participants in this study must have experienced trauma and chronic struggling that has changed their life and their perspective. The experience of trauma in their life is described as events including life-threatening illnesses, combat, natural disasters, serious accidents, etc. Janoff-Bulman (1992) wrote, "Traumatic events are unexpected in the normal course of daily life; they are extreme unusual crises" (p.53). Traumatic events are "sudden and unexpected, uncontrollable, out of the ordinary, chronic struggling …" (Tedeschi and Calhoun, 1995, p.19). For this study, participants must describe their trauma as a period of "chronic struggling" and are "extreme and unusual". The traumas must be life changing with a large impact on their life perspective.

This definition of trauma includes chronic struggling. The study previously mentioned in the literature review by Shepherd, Reynolds and Moran (2010) discussed

how they interviewed women who experienced chains of adversity that lasted two or more years. For this study, the chronic struggling should last a minimum of two years to ensure that this trauma and experience has impacted their life. The trauma should have taken place three years prior to this interview to allow time for the participant to have processed and experienced the chronic struggling involved as a result of the trauma.

Artist. Participants must consider themselves artists and should have been exposed to aesthetic experiences when observing artwork. Participants in this study are artists with aesthetic experiences. They can be artists in music or art, including all kinds of musical instruments and mediums of art. This requirement also includes the experience of being an observer or appreciator to other artists' work. The professionals could consider the art a second profession or a hobby. The artists must also have experienced aesthetic experiences with art. Aesthetic experiences includes qualities such as: a heightened state of consciousness, expanding the mind, transcendence, and changing the way a person thinks resulting in new perspectives and emotions (Csikszentmihalyi & Robinson, 1990). These experiences are visually engaging, create emotions, understanding of the art, and create dialogue within the viewer or artist and the art.

Problem-solving professionals in an education and health field. Problem-solving professionals in the health and education field are in a position to give instruction, help, offer guidance, and act as a problem-solving resource to clients, students and patients. This study is specifically looking for professionals in an education and health field. These professionals can include any field such as doctors, educators, student services positions, life coaches, counselors, and many more. This study looks at those who are in a position to guide people through problems or give instruction to those

who are confronted with obstacles. The descriptor of those who are considered a problem-solving professional are those in the health and education field and are in a position to give instruction, help, guidance, and act as a problem-solving resource to client. The participants must have experience working one-on-one with clients. The participant may have the qualifying profession as a current or past position.

Problem-solving professionals may help clients overcome obstacles to become better students, live a better life, positively impact their lives, and help find and develop successful solutions to problems encountered. The types of problems that require the problem-solving process from the professionals being analyzed includes their general approach to problems to their approach for the most difficult problems resulting from life transitions, obstacles, trials, or trauma and chronic struggling, that can include life-changing results, for clients. Problem-solving professionals have clients that encounter difficult problems that impact their life, including life changing trauma and chronic struggling.

Informed Consent

Informed consent was used prior to the interviews. Informed Consent was sent through email or paper form in person and then was signed to be returned to the researcher.

Timeline

Interviews started after approval. The overall study lasted six months. There were two interviews per participant to ensure depth. Each interview was one hour.

Reflexivity

The researcher fits the participant profile for this research. She has had multiple jobs where she played an educational role including teaching university courses in communication and as a certified life coach. She is a professional artist and musician. She is a commissioned oil painter and mixed media artist. She is also a professionally trained jazz and classical singer. The researcher has also played the violin with the Greater Grand Forks Symphony for many years as well as other regional orchestras. She has also had a long list of personal trauma experiences including life altering/threatening illness, abuse, manmade disasters, and system-induced trauma. The researcher found through many experiences that she needed help solving problems that were difficult and very unusual, and it was hard to find people who were able to help her solve the problems because they were so uncommon. She realized that she looks at problems differently and that the common thread between her and the others she found that changed her life path was because of their ability to tackle uncommon or complex problems; and in fact all had varying degrees of experience as an artist with personal trauma experience.

By describing the researcher's personal history and how the research relates, the researcher can be more aware of assumptions and attitudes and separate personal biases (Glesne, 2011). Acknowledging, reflecting, and taking note helps limit bias (Glesne, 2011). Writing notes before and after interviews and reflecting on assumptions and exploring biases will help eliminate bias (Glesne, 2011). The researcher acknowledges her experience and emotions that are associated with this research and she continues to be aware and acknowledge her personal attachments to try and eliminate her values from distorting the data. The researcher acknowledged, reflected regularly, and documented

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her own values and feelings associated with the data during the research process (Glesne, 2011).

Limitations

Limitations include: there is only one researcher who conducted the interviews; the researcher is an artist and has trauma experience. This could enhance the research because this means, as the researcher and analyst, I can better understand the language the participants used to describe their experiences and make connections. Validity is proven by how the evidence supports the conclusions (Marecek, 2003).

Validity

Validity techniques included in this study are multiple forms of triangulation, thick and rich data description, vivid description and self-search, saturation, and identifying researcher bias. Glesne (2011) described one form of validation as using multiple sites, or different groups of people. Lindlof and Taylor (2011) described this as a form of triangulation, the use of more than one source within the same method. Validity is stronger when more than one source validates results or conclusions. The researcher interviewed professionals from different places of work and in different types of specialties to give the study validation and to eliminate as much researcher bias as possible. This gives multiple forms of triangulation to ensure that one type of specialty and one profession are not biasing the data.

Lincoln and Guba (1985) and Glesne (2011) also described how rich and thick data description creates validity and or transferability. This makes the conclusion traceable and supportable allowing anyone to read and see how the connections were made in the analysis. It is important to keep the data trail for this research because of the

complex topic and in-depth interviews to ensure rich and thick data description. Any

analysis and conclusion made will have a rich description to make the connections to the

findings. Conducting two, one-hour interviews will also allow the data to be rich and

allow the researcher to find themes that match between the two interviews. This could

also be considered a third form of triangulation or prolonged engagement and persistent

observation (Creswell, 1998). Moustakas (1990) also explains that validity is found

within vivid descriptions and an exhaustive self-search. This means that validity is found

by vivid descriptions by in-depth interviews and descriptions from the researcher during

the interviews and in the analysis that allow a person to see how conclusions were made.

The interviews include vivid descriptions within the notes taken during the interviews

describing the verbal and non-verbal communication that participants used when

answering questions. The exhaustive self-search creates validity by having the researcher

analyze the data until there is no more meaning to be extracted. This is important for this

research because there could be many different meanings to extract from one section of

the interview and it is important to discover all of the meanings.

The interviews continued until the data and findings became saturated (Merriam

& Tisdell, 2016). Saturation is important so that all of the data related to the research

topic is being included because no new information from the participants is being found.

Each interview transcript was analyzed soon after the interview was conducted for

meaning units and themes so that the researcher knew when saturation had been

achieved.

Researcher reflexivity is important to validity (Merriam & Tisdell, 2016). The

researcher has explained their reflexivity and life history related to the research topic in

the reflexivity section above and is included in the final document. Writing notes before and after interviews and reflecting on assumptions and exploring biases helps eliminate bias (Glesne, 2011).

Data Analysis

Giorgi and Giorgi's (2003) in-depth phenomenological data analysis focused on understanding experiences, which will help in answering the research question because this research is looking at understanding the problem-solving experience and looking for qualities and perspectives hidden within the participants approach to problem solving. The first step in data analysis is that the transcripts of the interviews should be read beginning to end as a whole because phenomenology is considered a holistic perspective of experiences (Giorgi & Giorgi, 2003). The second step is finding meaning units or identifying parts of the transcripts with meaning. Transcripts are read a second time looking for the phenomenon being studied. Any change in meaning (new feeling, expression, or thought) is marked and separated to show the meaning sections to the study, including sentences or a paragraph that encompasses a full thought that is related.

The third step is to name the meaning that is related to the phenomenon (Giorgi & Giorgi, 2003). This is called psychological reflection. The significance of each meaning unit is thought about and reflected upon to discover insight (Charmaz et al., 2011). The feelings or expressions in each meaning unit are reflected upon to discover what it might say or explain about the meaning unit and process being researched. The meaning unit is changed from the participant's words to the words the researcher has chosen to make sense within the phenomenon being studied (Giorgi & Giorgi, 2003). The main research question can be asked in reference to each meaning unit to discover how each one

answers or reveals a part of the solution to understanding the process being studied. Each meaning unit label is directly related to the specific interview or example being studied (Charmaz et al., 2011). The meaning units are labeled in a way that articulates the main idea and dimension of the experiences being described. The meanings that are implicit are described explicitly. This allows the intuition of the researcher to be used and transform the meaning units (Giorgi & Giorgi, 2003). This process was clearly labeled and description of the choice for implicit meanings that are labeled were included. This process was completed in an Excel spreadsheet.

The third step develops more general knowledge and connections are made between the specific meaning unit, the example (interview), to the phenomenon as a whole (Charmaz et al., 2011). This is when the researcher discovers what is important about the meanings discovered and connects the named meanings back to the phenomenon (Giorgi & Giorgi, 2003). The meaning units and what was revealed about the expression or feeling in relation to the phenomenon is looked at as an aggregate whole (Charmaz et al., 2011). The themes and ideas are organized in a way that describes the main ideas of the experiences (Giorgi & Girogi, 2003). The dimensions found are highlighted, summarized and specifically articulated in themes that capture the process and structure as a whole (Giorgi & Girogi, 2003). Creating themes and organizing the structure will reframe the ideas without the details to highlight the main point. This form of analysis will allow the creativity and illumination found within the aesthetic experiences to be understood and seen within its artistic form, but with structure for understanding to allow other professionals to teach and learn the skill.

The analysis will also include tables 1, 2, and 3 to discover if the trauma and arts skills and qualities in the literature are found within the transcript of the interviews. This will allow a more thorough understanding and description to be created of the skills and qualities in Table 3 if they are found within the interviews.

Interview Questions

Based on the theoretical framework, the questions focus on analyzing the experience, the way he or she constructs their meaning, their experience, creativity and imagination, exploring their understanding and interpretations that shape their experiences and perspective. These concepts were analyzed in relation to the participant's approach to problem solving and the ability to change lives. Listed below are the questions that were asked for the first interview.

1. What does a problem-solving experience look like to you in your job?

   a. How do you experience problem solving in your job?

2. When a client, student, or patient comes to you with a problem, what is your general approach to problem solving?

   a. Please give a specific example.

3. What is an example of how you have approached a very difficult problem with a client, student, or patient?

   a. What are your thoughts and feelings when you approach difficult problems?

4. Please give a specific example. What does a problem-solving experience feel like to you /How do you experience problem solving and what feelings come up for you?

5. What meaning do you think of when you think of the importance of problem solving in your job?

6. How do you interact with clients, patients, or students when working on problems?

7. What are the major influences that have helped you evolve your problem-solving approach as a professional?

8. What artistic or arts experiences have you had in your life?

   a. What, if any, influence does this have on the way that you think and approach your work?

9. How has your experience in trauma affected the way you approach problems with your clients/patients/students?

10. What qualities and skills do you believe you have developed from your experience in the arts and trauma that contributes to your approach to problems?

The second interview questions were created from the content discovered in the first interview. The second interview questions were:

1. How do you help others see your perspective or be open to new perspectives?

2. What is an example of an aesthetic experience that was the most inspiring and transcendent to you?

   a. Describe it? (could be something you created or another artist's work you experienced)

   b. Does this experience impact your problem solving in any way?

3. Did you use art the same way before and after the trauma? Does it change

    your problem solving?

    a. Is your experience with art more useful for problem solving after the

       trauma or just as useful?

4. Was there a catalyst to finding or using the skills from trauma or art?

    a. When did you notice the skills?

CHAPTER IV

RESULTS

Professionals in health and education fields are in a position to be a problem-solving resource to clients, students, and patients. This research was conducted to discover how professionals in the health and education field, who self-identify as an artist and have experienced trauma with chronic struggling, approach problem solving. The research questions for this study are: (1) How do problem-solving professionals in health and education fields who self-identify as an artist and have experienced trauma with chronic struggling, approach problem solving in their profession? (2) What are the characteristics and qualities of these professionals and the methods used within their problem-solving approach that positively impact their clients/students/patients? Ten different professionals were interviewed to discover if there was a different way of approaching problems to be considered with the possibility of finding a new and different way of problem solving. Problem-solving professionals with a background as an artist and personal experience in trauma have a different approach to problem solving than any other literature prescribed methods of problem solving, which includes interpersonal skills such as self-awareness, personal qualities such as love, and methods of seeing such as hope and spirituality.

The discovery of the approaches and attributes of the methods of problem solving for professionals with experience in trauma and art can help professionals in health and education become aware of the knowledge and the skills needed to develop this way of

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thinking and seeing when approaching problems solving with their client. This approach could be taught to those in the problem-solving professions to help their clients through difficult times. The professionals described how important their job was and as Julie stated, "This is God's work …. and so how lucky am I that I get to be paid to do what I think is important and have meaning."

The themes chosen to discuss were the strongest themes. All of the themes listed had a 70 percent usage level by participants or higher. All ten participants have been used as examples throughout the results. Quotes and examples for each theme were chosen based on which one best represented the theme. The quotes and summaries of the information used as evidence and examples for each result were kept anonymous to protect their privacy because of the small sample size and the sensitive topics discussed.

Most of the participants were very immediately aware of how the art and trauma influenced their problem solving. The participants discussed the methods, qualities, and skills in general in the interview when answering the interview questions associated to understanding how their arts and trauma experiences affect their problem solving. Many of the results were directly identified by the participants as being enhanced by, and or developed through their arts and trauma experiences. However, they did not always specifically separate out which skill or method was linked to art or which skill or method was linked to trauma in each interview. If a participant put specific emphasis to link the skill set in relation to arts or trauma, it is listed below the skill set title.

This section reviews the different methods, qualities, and skills used by the professionals. The findings section reviews the methods, qualities, and skills used by the professionals. The findings support how their experience in the arts and trauma with

chronic struggling have transformed their problem-solving approach, as many of them consciously described how arts and trauma enhanced or allowed the development of their skills, qualities, and methods. This chapter provides the results to the interviews conducted for this study to determine those resources as well as a description of the participants, the assertions made from the findings, relating themes, and researcher observations.

Description of Sample

Participants in this study live and or practice their profession in Minnesota, North Dakota, Utah, and Wisconsin. The participants included in this study had jobs such as: professor, counselor/therapist, case manager, health and spiritual healer, nursing director, disability director for a university, music teacher, and university registrar. There were four males and six females. Participants' level of career experience and education ranged from only a few years of experience to one who is recently retired, and from a two-year degree seeking a four-year degree, to advanced degrees.

Everyone who experiences adversity experiences it in different levels (Jacobsen, 2006), and all of the participants had very different traumas that were experienced and interpreted as different levels of trauma. On the trauma scale, one participant identified as 1-2 mild, five participants identified as 3-4 moderate, and four identified as 5-6 severe. This was important for the study to have a range of trauma experiences, but also to have more severe trauma experiences within this study to really understand how trauma affects problem solving.

On the arts scale, none of the participants chose 1-2 mild, six participants chose 3-4 moderate, and four chose 5-6 a great deal of experience. However, during the

interviews after inquiring deeper, multiple participants questioned their level of arts experience and said they maybe should have put a lower number. Even with this change, these numbers still give this study a well-rounded arts experience to draw from for the results. The table below shows each participant's field of profession, art scale number, and trauma scale number. Participant's names have been changed.

Table 6. Participant Table.

	Participant	Profession	Art Scale #	Trauma Scale #
1	John	Health	Moderate Experience	Moderate
2	Andres	Health	Moderate Experience	Severe
3	Matt	Health	A Great Deal of Experience	Moderate
4	Jesse	Education	Moderate Experience	Mild
5	Sara	Health	Moderate Experience	Severe
6	Maddie	Education	A Great Deal of Experience	Moderate
7	Liz	Education	Moderate Experience	Moderate
8	Kim	Education	Moderate Experience	Severe
9	Julie	Health	A Great Deal of Experience	Moderate
10	Deb	Health	A Great Deal of Experience	Severe

Findings

This study was conducted to discover the way that a specific subset of professionals problem solve. This study found that problem-solving professionals in health and education fields who self-identify as an artist and have experienced trauma with chronic struggling use many different methods of seeing, personal qualities, and interpersonal communication skills to approach problem solving. All of the methods, qualities, and skills were used as a customized mix for each client by choosing whichever ones was best suited the situation with the client in that moment. The professionals have access to an extremely large toolbox, and they quickly and easily shift from skill to quality or method as needed.

The participants described a very artistic approach to problem solving. They used art as a metaphor throughout the results to describe skills such as resourcing, expression or emotions, and many more. Not only do they shift between skills to different qualities as needed, but they also layer the mediums or qualities and skills as needed as if it were a piece of artwork being created. Like art, in problem solving they see varying textures, color, emotions, and mediums (resources). Participants described the different parts of the problem-solving process to the creation of the art process: they start the problem-solving process just like art; with a vision. The problem is the canvas; the skills and qualities, such as emotions, are the mediums, such as paint color; and the practice of the creation is the perspective changer where they begin to see more and develop qualities and skills. The solution is the final picture pieced together or final work of art with many layers and textures.

Problem-solving professionals look at problem solving with a very different perspective when compared to the literature discussed. This study found that these professionals found problem solving exciting, and they enjoy the challenge the problems present. Problem-solving professionals do not use formulas and are not solution oriented. These professionals identify how some problems have cause and effect solutions, others end with resolutions, and other problems include recovery and management of issues. Problem-solving professionals focus on the management of issues, instead of just solutions.

The results show how the participants see the problem, their clients, and themselves. Many of the categories in the results relate to other categories within other sections of the results. Methods of seeing lead to personal qualities, personal qualities

lead to communication skills, and communication skills lead to methods of seeing. For example, creativity (method of seeing) is linked to letting go (personal quality) and resourcing (communication skills), which was acknowledged by the participants. Other examples from the results include that the quality of no judgment correlates to the category of trust. They both bring a different skill and quality to the table, but to be free of judgment in the problem-solving process, one must extend trust. Another example is how the quality of intuition is correlated to the skill of listening, which includes listening to the non-verbal. This includes listening to what the client is not saying, which is correlated to the quality of intuition. The participants also explained how personal qualities can be a direct link and foundation for methods of seeing. For example, empathy (a personal quality) is a platform to see more (a method of seeing). The results are circular in nature and rely on one another to create the full picture. This section reviews the most prominent methods, qualities, and skills and highlights some of the tools with more unique examples given by the participants.

The table below lists all of the tools used by the professionals discussed in the results section, in addition to the tools found but not discussed or not discussed in depth. Many of these qualities can still be found within the literature review. It is also noted that there is an extra category labeled as process skills. These skills were categories that existed in the results, but were not as prominent as the other three categories discussed.

Table 7. All Interpersonal Skills, Personal Qualities, and Methods of Seeing.

INTERPERSONAL SKILLS	INTERPERSONAL SKILLS NOT DISCUSSED	PERSONAL QUALITIES	PERSONAL QUALITIES NOT DISCUSSED	METHODS OF SEEING
Team Effort, Equal Level with clients, Believe in client's Abilities	Follow up	Empathy, Understanding	Compassion	Hopeful and Spiritual
Resource/Try New Things	Learning	Love	Confidence	See the Big and Small Picture, Discover Root Cause, Visualize
Asking Questions	Focus on client	Intuition, Balance Logic and Creative/Intuition	Humor	Make Connections/Make Holistic Connections
Give Students a Voice/Choice	Teaching	Let Go, Flexibility, Invite and Fight for Change	Patience	See more
Self-Aware, Separate Self	Use Personal experience	No Judgments	Sincere	See Many Ways, No Formula
	An Example to clients, Influence	Perseverance/Resilience	Honesty	See Different Perspectives, Help Others See, Not Black and White
Discussion and Expression	Motivate clients	Humility	Playful	Aesthetic Transcendence Perspective
Listen/Non-verbal Communication	Empower clients		Vulnerable	Use Art as Healing
Trust	There with the clients/Not Alone		Relaxed	Creative
	PROCESS SKILLS NOT DISCUSSED		Friendly	**METHODS OF SEEING NOT DISCUSSED**
	Use Small Steps, incremental success		Gratitude	Focus Symptoms and shifting perspective
	Take Action/advocate		Positive	
	Problem Solving is Exciting		Fearless	
	Assess, continuous		Service Oriented	
	Focus on Values/priorities		Respect	
	Research			
	Reflect/time			
	Brainstorm			

Methods of Seeing

Problem-solving professionals use methods of seeing including a hope and spirituality perspective, shifting back and forth between the big and small picture, seeing many ways to a solution, seeing many perspectives, seeing how everything connects to the problem, having a holistic approach (mind, body, and soul), and seeing more depth.

Art as healing. One hundred percent of participants used art as healing. Art became more influential on problem solving after the problem-solving professionals used it as a healing device. The professionals used art in a more healing way after trauma. The use of art as a healing method post trauma increased the impact of trauma and art experiences on problem solving. Using art after trauma as healing helped them see new perspectives and skills from trauma. Art influenced problem solving even more when used as healing.

The professionals described a process of how art enhances problem solving and is also the catalyst to allowing trauma to impact problem solving even more: 1. Art impacted problem solving. 2. Trauma opened up another level of problem solving, 3. Trauma opened up another level of art and changed the way art was used (impact on skills), 4. Then the professionals used art as healing because of trauma, which increased art's impact on problem solving. 5. Which then by using art as healing, helped them heal from trauma and have access to the skills they gained from the trauma experience.

Multiple participants (Maddie, Jesse, Julie, and Sara) said how they left art for a time during and or after the trauma. The pain and dysfunction had to become severe enough leading to acceptance after the trauma before the healing arts could be added back into their life. The pinnacle of the pain from the trauma was when they started using the arts as the catalyst to healing and using/developing the skills for problem solving.

Hope and spirituality. Ninety percent of participants used hope and spirituality. Problem-solving professionals use hope to approach the problem. They are hopeful and give hope to clients. The professionals use an existential and spiritual approach. They see

clients as spiritual beings and the process as spiritual. Hope and spirituality was specifically mentioned with both arts and trauma experiences.

Julie described how the arts influenced how she worked with the problems. The philosophy she learned from art was also used in her job. The philosophy she uses when creating art is how she keeps hope even though she may not be able to see how things will turn out (in art or her job), but trauma influenced how she has faith that better times will come again. She said, "I will be the keeper of the hope. I will hang onto your hope. I will continue to have the assurance that we will get through this. You are not alone."

The professionals described how part of the problem-solving process sometimes includes people they work with who cannot see the things that they can, and this last quote shows how the participant keeps the hope for them when the clients do not have the ability to see it and hold onto it. Instead of just expecting her clients to have hope when they clearly do not have the ability to do it, she does it for them. She goes on to explain how spirituality plays into problem solving and her mindset that she brings to the problem solving process; "The assurance and conviction of hope and faith… faith is believing in things that are not seen. When things are really bad you don't see it, but I have that faith." She openly discussed how her faith is part of her perspective on the problem solving process and explained how she thinks her job is God's work. Kim said, "We need that possibility of something greater than ourselves …the greater hope."

John explained that this process of problem solving is a spiritual process, but depending on the client that word may never be used because of the negative charge that can be attached to it. He described his work as "…an existential and transpersonal

approach." He also keeps hope very alive while managing chronic problems when there might not be a solution by "hoping for a cure."

Creativity. Seventy percent of participants strongly used creativity. Problem-solving professionals use creative out of the box thinking. Creativity was emphatically linked with both trauma and arts experiences. This skill was also associated with letting go of control and being flexible to create more creative solutions.

Andres explained that, "Creative expression is the mind's ability to bring out creative knowledge and awareness perspectives that can't come from a logical perspective." Art helps us think more creatively and come up with more creative solutions. Matt described that because of his trauma he, "…thinks of more creative ways to do things." Because his trauma included new physical limitations, he had to think of new ways to do ordinary tasks. He was given tools that he did not think worked very well and so he had to come up with innovative alterations to tools to help him get dressed, for example. These tools and creative thinking skills were then used when helping clients who were faced with problems that no one had solutions for.

When Andres was asked about problem solving and creativity he said, "I feel that art for me or creative expression is absolutely core essential. It's the minds ability to be playful. Playful energy brings out aspects of creativity, knowledge, and awareness that we are unable to tap into when we come from a purely logical standpoint." This quote shows how creativity and being playful opens so many areas of the mind's ability to see and use other skills, such as awareness.

See the big and small picture. One hundred percent of participants strongly used the skill of seeing the big and small picture. Problem-solving professionals see details.

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They also see the big picture. The professionals shift between seeing the big and the detailed picture. They visualize parts of the problem. They help clients visualize and also use visual aids.

Liz described how problem solving, for her, is a lot of big picture thinking. It is also the connection of narrowing it down to details that she can make it more attainable for the staff to accomplish the big picture goal, or work with them or many different people across the university to make it happen. She said,

When you do art, you have to have a vision or goal and so you have to figure it out, figure out how to make that happen so yeah, it's a big part. It's both… It's the artistic part where you have a vision and, but, it's also real-life part when you have to survive so you can have to achieve something and so they are very similar and related to that. You have a vision and goal for whatever project I'm painting.

She goes on to relate this to problem solving in her job in that she has to have a vision for what she wants her students to become or what the end result needs to look like. This also influences the tools and resources she needs to create or the details involved in creating that vision.

When the problem solving gets serious and more difficult, a big picture perspective can be important. Julie said, "This is not the end of the world... the crisis should end, and I'll take it seriously. It is not the only crisis they've had." Andres described their perspective and approach as, "try to see it from a birds eye view; try to really see it from a distance."

Jesse explained how he looks at the details to help his students overcome learning problems. He said,

…All of a sudden you get people putting in very, very strange little things in the

formula like… And all of a sudden …you don't understand what they're (the

student) trying to do. You can't read the formula. And then you have to say hey,

hang on. This is what the formula means. And then they'll say oh is that …all it

is…Frequently very small things that we have to fix, but it's things that actually

stop the student from being able to do the work.

Sometimes it's the little things like Jesse explains, but he was looking for the details and

the bigger picture. He does not rule out the easy fix or little hurdle, as Jesse calls it.

When Deb has a problem with a patient, she follows up with the staff to look at

the bigger picture of what else might have caused the problem or contributed. Deb checks

in about the minute daily details of her staff, but also discusses their overall priorities to

see if it aligns "to make sure everything is running smoothly and safely." These

professionals are describing the ability to shift back and forth from details to big picture

thinking and abstract to logical thinking.

Make connections and holistic connections. Ninety percent of the participants

strongly used this method of making connections. Problem-solving professionals make

connections. They consider contributing factors and implications. The professionals see

how everything connects to the problem. They connect problems to the impact on their

whole life. The professionals have a holistic perspective and approach (mind, body, and

soul). They see the whole person. Making connections was specifically linked with

trauma.

Andres said, "When you're looking at a problem, you always keep looking for

other things that might be contributing a part of it." He goes on to explain how after

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looking for other contributing factors, there might be three that go together, so he looks for the patterns and how to put everything together.

Liz described how her trauma changed how she sees connections in problem solving and how one problem can affect something else and cause another problem. Additionally, this shows how her trauma helped her see how one area of life affects another. She said,

> Where your brain just isn't functioning as fast or as quickly and your short-term memory isn't working, you can you get tired. I'm grateful for the counselors and for the nurses that recognized… that picked up depression that was caused by a lot of that. I wasn't fast, I wasn't well, and what that can do to one's psyche and it's easy to spiral down.

The professionals consider the implications of the problems and think ahead to what is needed. Julie said, "This I can understand, that there is a lot more to it; that there are physical and chemicals and external influences that can really, really impact a person to become healthy." John explained how they look at how the issues are affecting their daily life and activities, and consider the specific experience of each client. Participants consider the mind, body, and soul all connected and treat the problem-solving approach as such seeing how the issue might be affected by or affecting other areas of the mind, body, and soul and their whole life.

Andres explained, "If we don't trace the injuries back, so if we don't look at all of them, we can't see the whole picture." He explained how one action can cause another, and another incident, to an injury, to another injury and people only see the one injury instead of how the list of things actually had an impact.

See more. Ninety percent of participants focused on seeing more. Problem-solving professionals see more depth. They believe in things not seen or see what is not there yet. The professionals see more viscerally. They see comparisons and contrast. The professionals inquire past the surface to find the underlying issue. The professionals search for root causes. Seeing more was specifically associated with art and trauma.

Maddie described how because of her art and trauma experiences, she saw more than just the math in her job and art of singing. The way she saw became more visceral and personal for herself and her students. She said,

> I was always the mathematical musician. I saw the patterns and understood like music theory, and composition, and the way that it's mathematical. I think by delving into art and the way that I did (using art as healing after trauma) I opened up that being able to see and understand the more visceral type of aesthetic experiences that come from music and it became more personal, not just for me but for any performer. And so that opened up a better ability to connect with the music emotionally.

Kim described how aware she is of the depth of differences around her culturally because of her trauma and art in relation to problem solving. She described how she can see past the surface with color, race, symptoms etc. This could be described as more dimension to her ability to see. She said,

> Because of all the trauma and because I see things, …I like to see people, and I like to see positives and negatives, and differences, and that goes back to art in color. I'm very aware of all the medium and everything around me in life and am very cognizant of that and then that changes.

Here Kim is describing how it changes her perspective and how she sees beyond the color, race, or political associations of a resource, and looks past the surface for beauty.

Andres described how the bigger problem is never solved so there is problem after problem to be solved. He also explained if he takes a second to look at the pain, stops fighting it, and then listens and stops judging, he has an opportunity to look deeper for the root cause. This professional does not stop at just the skill of listening and the quality of not judging, but takes the step further to explore deeper and still hold a big picture to find how there might be something deeper as the cause for everything.

Maddie described how the greater your sorrow the greater you can feel joy, which changes her approach to teaching and problem solving. The joy is brighter after trauma, and the joy is deeper after trauma. She also goes on to explain the depth created saying, "Because you've allowed more ability (this greater joy and sorrow resulting after the healing of the trauma) you've allowed yourself to be open to things that before you would close yourself off to, so that's what I think I mean by depth."

Sees many ways. One hundred percent of the participants use this method of seeing. Problem-solving professionals see more than one way to a solution. They offer options to clients. They consider all options. This was specifically mentioned to be associated with both trauma and art. This skill was associated with the creative out of the box thinking.

Matt described how he sees many ways by saying, "You know you just find different ways to the same." He is describing how there are many different ways to a solution. Matt said,

You got to think of different ways to word things. For instance, you know if

people need a supplement, social workers in the county won't pay for

supplements. They will if the doctor writes the prescription the right way, and it is

coded correctly. Then the county or the state will pay for it.

This example was to show how things are not as black and white as they seem or how

creative thinking is involved, but it also shows how this participant looks for many

different ways to get to a solution.

Jesse described how he continued to find many different ways to the solution until

the student really understood. He acknowledged how there is more than one way to a

solution, but also that there is not necessarily one formula. This was interesting because

this was a professor who was teaching word problems that were very quantitative in

nature. He said, "Everybody has a different way to approach the problem, and if the

student says, "I don't understand," then you have to find another way, and another way,

and another way, until you find a way that makes sense to the students." He explained

that if you understand the problem in only one way, then you can only teach it one way.

Julie explained how art shows how you can work around a problem, and she used

an example from her experience with pottery and the different directions you can allow to

unfold to get to the end result. She said,

You can just have something go a little sideways and the whole thing will plop.

And sometimes you cut off that part and then you try to build something

completely different that will be added onto it, and you get a different result. And

hey, there's nothing wrong with that.

Or when her clients have what some people think is delusional thinking, she might solve the problems by going sideways instead of fixing the thinking. Julie described acknowledging all the opinions on the table or offering lots of ideas and options to the client. Additionally, John discussed using many approaches at the same time such as, using medications and the doctors, in addition to talk therapy, etc.

Sees different perspectives. Ninety percent of participants strongly used this method. Problem-solving professionals help others see the issues or new perspectives. They see different perspectives. They acknowledge different perspectives. The professionals see from other people's perspective. The professionals do not think in black and white all the time. They think mistakes are okay.

Maddie explained that the more art she did and the more different kinds of arts she experimented with, changed her perspective (even more after she used it as healing). She said, "and I can see things from different points of view that I didn't use to be able to see." Liz described how she "primes the pump" with anything from the arts and can begin to solve a problem by thinking from the perspectives of the other people involved in the problem or friends that she has. She thinks about how they would address the problem and visualize it. She is then able to think about what the student's needs might be too.

Liz goes on to explain her perspective by describing the rose colored glasses that we all have on our face can distort our perspectives. She said, "We all have our glasses on our face that are distorting our view of ourselves and others. Understanding that the ones I'm wearing is not the same lens that others are wearing and are looking at me in that." Maddie takes the pressure off her students by taking the perspective that the problem is not all or nothing, which is taking a bigger picture perspective with less right

and wrong involved and becoming more grey in the way of seeing and thinking. Liz explained how black and white solutions are often not the answer, so the ability to see grey allows just another perspective to be included to find solutions or a way to a solution.

The professionals described how there is less right and wrong and mistakes can actually yield better results. Julie said, "It is easy to mess up, and things aren't perfect but yet there's other artistic solutions and ways around that. And maybe you'll land or end up with a better product because of the mistake."

In the second interview, there was a focus on discussing how they helped clients see new and different perspectives. The results showed that they use many of the same techniques and skills already listed such as empathy, perspective work such as exploring new perspectives and then discussing them with the clients, asking questions, and many more.

Aesthetic transcendent perspective. One hundred percent of participants had aesthetic transcendent experiences that shifted their perspective. The second interview delved deeper into the most transcendent aesthetic experience to find out what impact that experience might have had on their problem solving. The interpretation skills impacted the participant's problem solving, and they were reminded of what is important about their job. The transcendent aesthetic experience changed the professional's perspective in their job and problem solving, and helped them see bigger and more holistic perspectives. Julie said it even helped her see 3D. It was also described by Maddie that these aesthetic transcendent experiences reminded her of the emotional connection that is part of the problem-solving process. It made Jesse more subjective

instead of objective. Participants described these transcendent aesthetic experiences as occurring with big and small experiences with the arts that impacted them. Those impacts came from seeing a famous artist's work such as an experience with the impressionist paintings at the Musee d'Orsay in Paris, France (Jesse) or the live performance of a famous opera singer such as Janet Baker (John), or small experiences with everyday arts activities, such as a song that came on the radio or a TV show such as Grey's Anatomy (Deb).

Personal Qualities

Problem-solving professionals use personal qualities such as: empathy, love, intuition, flexibility, humility, resilience, understanding, no judgment, and the act of letting go of control to approach problem solving with clients.

Empathy. One hundred percent of the participants strongly used this skill. Empathy was the strongest quality used in the problem-solving process. Problem-solving professionals are very empathetic. They claim to have more understanding of the problem and of clients because of their trauma and art experience. They seek to understand. Problem-solving professionals have more depth of emotion. The professionals are very consciously aware of how this quality was either developed or enhanced by their experience with trauma, with one person specifically associating it with their arts experiences.

Jesse described problem solving and empathy, and how problem solving and empathy are two different parts to the process. Empathy creates the platform for the students to come to you. He said,

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And I frequently get students, grown men, starting to cry in my office. That's the kind of trust that I want from the student. It's an impressive trust that I have on the forefront of my mind… I don't think other people would experience it (the students that he just described who come to him). If they don't have empathy, they will not experience it. They will never see it…

Jesse was explaining how his level of empathy increased because of their trauma, and how he would never have seen certain parts of the student's lives that impact problem solving if he had not had access to the empathy. Empathy appears to be a platform to the ability to see more parts of the problem-solving process.

Jesse discussed how he now understands where the students are at because of the trauma he experienced. The trauma increased his empathy, which already did exist, but also the understanding of where the students are at in their life and situation. He said,

Whether the personal trauma is an unwanted pregnancy, drug abuse, alcohol abuse, going to jail whatever, it is a personal trauma and, you don't really get over it for a long, long time. I didn't quite understand that. I had the impression that you just pick up your socks and wipe yourself off and get on with it. Now that I've been through it myself, I understand that other students might be going through something similar in their own personal lives.

This quote illustrates how the professionals see more than just the problem; they understand how it affects the person, their life, and how that changes the problem-solving process. This skill of understanding begins to incorporate the skill of seeing the big picture or making the holistic connections to understand on a realistic level where the student is really at in their life.

Deb described how the experiences she has with creating music gives her more depth of emotion, a range of emotions, and the ability to intuitively read others' emotions. She said, "...When you sing a song you can sing the same line, but depending on how you sing it, it brings on different emotions...it (music) makes me more emotional. I am more in tune with other people's emotions..." This is just another example of how the arts experiences bring more depth to emotion within one's self and other people.

Trauma taught Deb that life is precious and allows her to problem solve on a very human level. She said,

> I think that's partly why I like helping people when they're dying because that's an awful time of life even if it's someone who is elderly and lived a good life. I think it just made me more human …

She is not afraid to be there and empathize with their pain during some of the most difficult moments in helping them pass.

Love. Eighty percent of participants discussed strong love for their clients. Problem-solving professionals show love to their clients during the problem-solving process. Love was also one of the other strongest qualities used in the problem-solving process. Love was specifically linked with the professionals' trauma experiences.

In an answer to the question of what qualities and skills from trauma impacted their problem solving, Deb answered, "Just being able to empathize with people and truly care about others." She continues on to describe empathy and love and said,

> I think with my friends, they always joke and say you're like a dog- somebody could just beat you and you'd still love them. And that's kind of true. My worst enemy, if they called me up and said I need help, I would help them.…they

always say I care and I really truly do. All they teach you in nursing school… all

professional boundaries. But you know what, I love every single person in my

nursing home, and I tell them because it's not just words. I truly do feel like all of

the residents are like my own grandparent, and I love them all. And if anything

happens to them I will beat somebody up.

It is interesting how she points out they are taught to have boundaries, but she feels it is

important to show this love even against the training she was taught. This also appears to

be a protective love where she will do anything to keep them safe from harm. She

described a very deep personal love for all the people she takes care of, not a surface

level of love.

Jesse described how they feel their students are their own children. He said, "You

shouldn't teach if you do not love your students." That is a very strong statement to imply

to love your students as your own children. Once again, this is a very deep and strong

level of love being described about patients and students. This would also imply that the

students automatically obtain this love by becoming his student and could be thought of

as unconditional love because this would be the one thing that they do not earn in a

classroom.

Kim described how she loves all her students and helps them problem solve with

a dash of love and nurturing. There was a certain harshness that came out as she

described this because she loves them and tells them she loves them, but wants them to

become independent and not hinder that process. There was also this harshness that could

be correlated because she went on to describe and link her understanding of her

relationship with the quality of love because part of her trauma that involved how her

family showed her love or their inability to. However, even though her trauma appears to have hindered this quality in problem solving on some level, she still uses love and nurturing in the beginning of her problem solving.

Intuition. Ninety percent of participants strongly discussed this quality. Problem-solving professionals consider problem solving an intuitive process. They use intuition when solving problems and also use intuition to communicate the clients. The professionals also balance logic and creativity, science and intuition.

Intuition was specifically associated with the arts, but Julie also explained it as a skill that was refined by her life experiences. She described how her intuition tells her when something is off and how to go about identifying when there is a problem. She said:

I have a lady that seems to be doing just fine all the time, and then she shaves her head and you know people can people do that and she has all kinds of fashion and routines for exercise, but I also know that is internally when things are cranking up. So you, you kind of pick up on those things...even if someone's not telling you that when this person does it, it is a concern…things are going badly. I tell myself and my co-workers, my antennas are going up, my antennas are searching out something not right here. Something's Hankey…

Julie is describing how she internally knows that there might be a problem before she is even told, which means she might be able to prevent more damage in the situation because of the intuition she is listening to. This also describes how she really gets to know the client on a personal level to be able to know and pick up on that intuition for that client and the problem solving needed. The professionals look for the small subtle changes-- if something is wrong or what is not being said and then acknowledge their gut

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feelings. Andres talked about how to maneuver through the process with the client using intuition and what feels right, and deciding to bring something up if it feels right or if he feels the client wants to hear it. Maddie described how the way she chooses which techniques to use to help a student learn when up against a road block is purely intuitive, and also there can be an almost immediate intuitive idea and response to the problem being worked on. Liz described how the problem-solving process uses logical deduction and instincts, but is more instinct than logic. Gut instinct is another resource and it should be balanced with other resources, including science, according to a participant.

Let go. One hundred percent of participants strongly use the quality of letting go. Problem-solving professionals let go of control and learn to accept different symptoms associated with the problem. They are flexible. The professionals invite and fight for change. Letting go was specifically associated with arts and trauma.

In this example, Julie described how there was still influence from art pre-trauma (post-trauma there was even more influence from art) and how particularly watercolor influenced her problem-solving pre-trauma. She said:

> I did watercolor quite a bit. You can't control it (the paint, the watercolors), and things happen that you can't anticipate, but you have to try and take those unanticipated issues and transform them. So I think I've always had that (attitude of)… all right… that didn't work, but it doesn't look like I thought, so what can I make this (piece of art-watercolor) into? That's always been there. I am not in charge of the universe thank goodness, and God does and so I can let go of trying to control things that are not controllable, but you can work around it.

The water coloring experiences showed her that when problem solving there are unanticipated issues and sometimes she cannot control them, but she can also work on the fly to transform them. It shows how trying to control things does not work with problem solving. She also has a very big picture perspective on the fact that some things in the universe are not controllable, but that she focuses on what she can work with. Liz described how her trauma changed her from healthy one day to dying the next. She described how this taught her the ability to let go, walk away, and not care so much about what she left behind, and this attitude and approach will enhance the problem solving. It also showed her how to move forward when other people in the problem-solving process are stuck; and just letting them be stuck if that is their choice.

Matt discussed how he is flexible and easy going, yet puts pressure on government officials or those with administrative power to do the right thing and take action. He said, "Well you talk to them (clients) on a pretty casual (basis). I am not really a high-pressure kind of guy with people and (am) really easy to get along with." In response to officials he said, "all of a sudden things change when you start putting pressure on them so when difficult times come about, you put pressure." This shows how he is able to let go but be flexible and put pressure when needed to get the problems taken care of.

John and Sara talked about the flexibility of in the moment shifts in problem-solving methods. John said, "If I feel for example that I need to shift my focus to do more cognitive behavioral work with an individual, then I will make that conscious shift." Here he is describing how he uses in the moment flexibility based on the client's needs without a focus on an exact order to things.

No judgment. Ninety percent of participants strongly used the quality of no judgment. Problem-solving professionals do not assume or judge the problem or the clients when approaching the problem-solving process. They accept different ways of thinking (reality or not). The professionals do not question the client's experience.

The quality of being non-judgmental was specifically linked with trauma. Jesse said, "…and I don't make any assumptions about what a student's past experience with an issue might be." Jesse went on to explain that not only does he not judge the person and their experiences, but he does not judge the problem and the causes, which leads to the skill of seeing more than one option. Maddie explained how a music student who was completely tone deaf thought they were a good singer, and she never broke the news to this student. She just started working with them on the issue. This shows how she was able to withhold judgment and focus on the real problem that would bring beneficial results.

Julie described how she acknowledges a client's delusional thinking, but then addresses how she tries to find some common ground with them even if what they are saying is technically crazy. Andres described that because of his trauma, he does not question whether or not the symptom or trauma the client describes is there. He focuses on where, why, and how much, instead of focusing efforts on if the trauma and symptoms are really there or not. He said,

> What I've come to these days in my healing days in the highest level of healing is this: if you can get people to see that they're making that choice, well than they have the choice to change it as soon as they can see that they're making that. And it's okay not to judge it. This isn't about like, oh that's a bad thing. No.

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He helps people see choices they make so that they can see the choice of change, but he does it without making a judgment on any of their choices. He does not label one as bad. Nor does he want the client to judge the symptom or choice so harshly. He just wants them to be happy and healthy.

Perseverance/Resilience. Ninety percent of participant's use perseverance/resilience. Problem-solving professionals do not give up. They are resilient. The professionals try new ways until one works. This quality was specifically linked to both trauma and arts experiences many times.

Kim explained that she does stop until she finds a solution. She does continual problem solving until there is some resolution. Liz said, "It's (the problem) reassessed, reflect, and try again. So if it doesn't work the first time you keep at it." Liz keeps doing this process and changing the formula by assessing until she finds some resolution. Julie compares this process of perseverance and resilience to her art and how it is the same in her job. When talking about her art process in job terms she said, "All right this isn't working. I either need to do that for a while or I need to come back to it more frequently than I would usually." She described how she has to have confidence in the process and herself and that there will be something good that comes out of her effort.

Matt described how they will not stop on a local level if the problem is not being solved, they will go to a national level and will not take no for an answer. He described one instance with a client as:

> ...About four months of getting the runaround from Social Security, and then the
>
> Social Security telling me in no uncertain terms do not call here again regarding
>
> this consumer. And I said okay, I won't. And I called the congressman and all of a

sudden he was calling me back apologizing and that was the director of Social Security.

These professionals are extremely resilient and fearless. Matt also worked with a client for two and a half years, multiple times a week, until the client was able to pass a test. There were many obstacles along the way but he did not stop working with the client at the first or even second failure. His client failed the test that was needed ten times before he succeeded. He said, "You don't give up, you just keep working away at it." He picks a different route until one works, and explains how frustrating it is because some days you don't accomplish anything, but the next day you accomplish many things.

Humility. Ninety percent of the participants used humility. Problem-solving professionals use humility to approach the problem-solving process. They are okay being wrong, and acknowledging limitations. The professionals are okay not having all the answers and asking for help. Humility was consciously associated to both trauma and arts experiences.

Jesse explained how painting relates to his problem-solving approach creating the quality of humility. He explained how he knows so much about the academic world and the subject he teaches, but then you try and create art as a painter and it can take you many times to repaint one section of your art until you have it the way you want. He said,

> Painting is a humbling experience because all of a sudden you were very good at
> what you do academically. When you start painting you get to something and you
> just cannot get it right at the moment. And working on a painting that… I think
> I've been working on this painting for seven years, you know it is painting over

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and over and over again until you get that little feature right and I find that the hand holding the guitar (in the painting referred to here) is an extremely difficult thing to paint. So this hand has been repainted so often it's unbelievable. There must be layers and layers and layers of oil in that single hand. So it is very humbling. You actually start realizing that you are very, very shallow. It makes you humble. You can fail as easy as anybody else can fail. It's just that they (clients/students) fail at something different and your students may be failing their academics.

He explained how he has never done a painting that was perfect with nothing wrong, which keeps you humble enough to say to a student if you made a mistake. He explained how his experiences are no different in importance than his student's experiences, and that many problems need humility to get to the best end result no matter how good at your job you are.

John explained how the ego can get in the way of the quality of work, either being their art or their job, so staying humble is key. He described how he developed the humility to practice his art, and humility is needed on stage and in his job. Liz discussed that sometimes she needs assistance with the creative problem-solving process and asks for help from other people. The way she described it shows how much humility it takes to put an ego aside and ask for help, but she is also able to recognize the amazing work that is created as a result. Andres is not afraid to acknowledge his limitations within his profession with his clients. Maddie said,

I'll be like-- here's our problem. Lets find a solution. And if it's nothing that I can (already) know, at least I'm open with them that I'm working on it. Working on a

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solution. And we're going to try a couple things together and see if we can't find

one.

She explains that she is not afraid to be wrong, to not have the answer, and be open about it with her student. She can set aside her ego and have humility to know she may not have the right answer and to work on equal ground with her student.

Interpersonal Skills

Problem-solving professionals use many different interpersonal skills such as: Taking time to discuss, using depth of expression, sensing the non-verbal, listening to verbal communication, listening to what is not said, sharing stories, creating trust, resourcing, asking questions, working as a team, giving clients choice, self-awareness, and taking action.

Discussion and expression. One hundred percent of participant's use discussion and expression skills. Problem-solving professionals take time to talk to clients. The professionals take time to discuss on a personal level with the clients and assess the situation and the problems. The professionals use clear communication. The professionals encourage two-way communication. Problem-solving professionals have more of an ability to express themselves. The professionals teach others how to connect and communicate emotionally. This skill was specifically associated with both trauma and arts experiences.

Sara discussed how they take time to talk through possible solutions. It also gives them time to process and reflect and connect to other skills such as giving clients a choice and a voice because there is so much discussion occurring. Kim discussed how talking things through with the client allowed her the opportunity to begin to identify the problem. She linked this skill to listening and the series of questions she begins to ask. Kim said, "I try to

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make them feel at home, and then I'm just like, talk to me about why you're here today so we can start talking, and I'll listen." The students then have the time to divulge whatever they want.

This skill of communication/discussion and taking the time to communicate and discuss with clients was pointed out to be the platform or foundation for many other skills to be used. The professionals take the time to talk through the issues, the problem, solutions, etc. This skill is simple, but important because this also means that they do not rush to solutions or take the first problem that is labeled with the clients that are sent to them; they take the time to discuss first.

Maddie described that because of her experiences in the arts, in addition to her trauma, it changed the way she was able to express emotion and the way she was able to express feelings within her job of teaching music. She said,

This way (without the depth of expression she now has) it's a lot harder to receive that performance that brings tears to people's eyes, which is what music is for: which is what art of any kind is for; just to make people feel. Whether it's crying, or happy, or anger; to make people feel something and connect. You're connecting, you know, to the audience …to perform, that is one of the biggest feats with students- then to help them feel. Yes, yes that's the part I wasn't good at before. That's the part I didn't understand, but I think I do to a much greater degree now.

Maddie described how the trauma brought her arts to another level and allowed her to feel more, but also created more of an ability to communicate in a way that helped others to feel more.

Listening/Non-verbal communication. Eighty percent of participant's use this skill. Problem-solving professionals listen to the clients. The professionals listen to what is not said. They listen to the subtleties or even what is behind the words being said. The professionals sense and listen to the non-verbal communication of both themselves and the clients; they listen to the intuition. Listening was specifically linked to arts and trauma.

Andres described how he is constantly listening to what is being said including what his own body is telling him about the situation and what his client's bodies are communicating. He listens closely to discover what the clients want. He said, "All I try to do is help them listen to themselves because it really is in there already (He is referring to the client's natural gifts and the ability a professional has to help them find and use those gifts). And that's my goal is to help them listen to themselves." It is also noted that he listens to the pain. There are many levels to this skill of listening (sensing what is not said, listening to the nuances and tone of voice, etc.), but most interesting is that Andres described how he listens for the pain. He does not run or shy away from it, he listens for it and evaluates how he is working with the problem at that point.

Liz described how she listens for what they are verbally describing, what they describe as their needs, and listening for what they are not saying. She said, "Sometimes it's so much more important than what's going on in the mouth (meaning what the client is saying)." This skill means the participants are able to pick up on so many cues and detect what might not be said and what is being communicated on that level, rather than just the words being communicated. The problem-solving professionals could choose to

ignore their intuitive quality, but they listen to their intuition from their own bodies and the intuition they hear from their client's.

Trust. One hundred percent of participant's use trust. Problem-solving professionals are very open. They open up to clients. The professionals share their stories. The professionals share stories creating trust and hope. They create trust, keep and set professional boundaries, listen, validate, and create safety to develop trust. Trauma was specifically mentioned as the catalyst to qualities like being open, sharing stories, and creating trust.

Many participants described sharing stories on many different personal levels. In fact, it was described by Maddie how being too professional got in the way with problem solving. It was noted by John and Sara that professional training advises against much personal sharing, but all of the professionals described some level of sharing that occurs in their problem-solving experience because of the impact it has on problem solving and success. John said,

> Absolutely yeah, you know the richness of life experience has a profound impact on the work that we do and every relationship that I enter into. Whether it's a therapeutic relationship, a collegial relationship, or a familial relationship, I bring all of that with me. I think (about) that when I disclose that there have been occasions where as a therapist, I do some self-disclosure. It has a profound impact on people when they realize oh, you too have had some major issues that you've dealt with and are continuing to deal with.

Sharing, even in professional situations, has a positive impact on problem solving. Many times professionals are taught to leave this out, but the professionals in this study show how important this skill is. Sara described how allowing clients to know some traumas in her

life makes it much easier for the clients to be open and comfortable and develop trust. Sara makes her office a personal space by putting pictures up that relate to her trauma and loss creating that sharing and open space of trust. Trust was linked and created with many other communication techniques, such as listening. Kim explained that she validates right away and truly hears them to gain trust and she believes she gets to results quicker because of this trust she creates.

Deb described how she is aware that a person needs to feel cared for, appreciated, and heard. She said,

If you don't feel trusted or respected by people you work with then you may not go to them with a problem or you may not want to go talk to them about a problem that could have serious consequences potentially with the resident care.

She described how important it is to develop the trust to even begin the problem-solving process.

Liz described the hurdles and tools she uses to develop trust. She said, "It takes time and relationship building to understand and develop trust especially when you're making big changes. Some people don't understand your that intent is always good." Liz explained how important it is to understand intent of your client or student to developing trust. She described how it can take a long time to develop the trust, but giving support and the tools they need to help them understand your intent in order to develop that trust.

Resourcing and trying new things. Ninety percent of participants use resourcing and trying new things. Problem-solving professionals resource. The professionals are educated on possibilities of resources/out of the box resourcing. The professionals network. Resourcing was specifically associated with both trauma and art on many

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occasions. The professionals are willing to try new things. The professionals experiment. The professionals try many different ways to solve problems.

Kim described the tremendous amount of resourcing she does and how it relates to her experience with art. She described including administrators, different relating departments, state departments, and creating many meetings, doing lots of emailing, rallying all of the possible departments and people that might relate. She networks and resources to discover who should become involved. She said,

> You know being an arts person, it's a canvas. It's a connection of people and resources so trying to find out where the connections are or where they should be and how the problem fits into that that we can solve. So I really do think of each case like a picture. Like I have to put it back together at the end of that story.

Resourcing is being described as a platform to create the art. This participant is describing an artistic thought process to try and figure out how to connect people and pieces of the problem by resourcing. She focuses on connecting and putting things back together to make the art. She also described the client and the problem with all of its parts as a picture. This could mean that the problem-solving process is an entirely artistic process like creating art.

Kim described the resourcing and problem-solving process to painting a turtle explaining that you are not going to paint a tiger when you envision a turtle. She said,

> And then like the painting, it's the process of getting there. So what resources do I have to use to paint, and do I have all the primary colors or don't I have all the primary colors; what am I going to do? So maybe I use the string (multiple medium) over this, maybe I use a different medium to add to it so now it's not just

an oil painting. It has more texture in it, and I'm doing something else again. What resources do I have and then I use those in order to capture the turtle I want, and then the same thing with the job. It's okay, here's what we want to do. Here is what we have; here are the resources. Now I give them to the student and help them access those.

This describes so much layering of resources, just like art, until it creates the desired solution. The professionals do not stop at just one resource. They always listed many different resources and were willing to try anything to get the best and desired result.

Maddie said when describing teaching a person to sing,

"You can explain how it feels to make that sound (when singing) through yourself. (You) have to feel it for them. So you might experiment with different things until you hear the sound you want and then you say that's the sound how does that feel to you.

Maddie is willing to experiment and try new techniques and research resources to help her student's learn. She is willing to fail the first time and try many different ideas until one works.

Sara described how she has a greater knowledge of the resources available because of her trauma and can give her clients a lot more information. Julie described how because of her trauma she is willing to do whatever it will take, which begins to incorporate their creativity too. She said, "I am created to help them or at least gather resources to be of assistance is important." This is a very strong statement because it gives resourcing a very prominent role in the process.

Asking questions. One hundred percent of participant's use this skill. Problem-solving professionals ask the clients many questions to get to the root and see the whole picture. They question why. This skill was specifically mentioned with relationships to both art and trauma experiences.

Professional's ask many questions and often times there is a series of questions. They stay curious. Deb asks questions to "see more into the mind" and to dig to the root by asking many questions. She asks, "What happened, what would be easier… what did you do this time… what did you do when you got to work…then what…" She traces back a timeline by asking questions that go deeper.

Matt asks his client's questions that relate to getting some extra help outside of his office and if they say no, he will ask again. The questions are asked many times. Jesse asks his students a series of questions to better find where the problem really is or what they understand and don't understand, and they also encourage the students to ask questions to help with this process.

Not only do the professionals ask the clients questions, but they also ask themselves questions as part of the process to defining the problem and solution. Andres gave an example of a skill of internal questioning and asked himself, "Why are you having knee pain at all? Why is it left instead of right?" This quote shows how the inquiry questions more than the initial question of how to treat the pain, but many questions of why. Kim explained the internal series of questions that she goes through:

> I have to identify the problem, and that's kind of why when they talk to me I'm listening to find out what the parts are. Like what is the problem, what's getting in the way that's causing the problem, what things have you tried to solve the

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problem, do you need help to solve the problem, here are some things that the

other students have done.

Kim is asking herself questions. However, she does not indicate that she answers them

immediately. This could mean she gives herself time to reflect because of all the questions

she asks herself. Kim also includes questioning the problem and the client. These questions

are big and small in scope, which could allow a big and detailed perspective to result.

This is an interesting skill because the professionals question how things are done and

try to find a reason why something is happening, looking at contributing factors, and finding

the root, which allows them to prevent the problem again. They combine other skills such as

connection and discovering the root cause, but ultimately this process starts with their desire

to question why. Liz brings questioning to an even bigger level and questions the systems

in place. She said, it gets me in trouble, but you know it's the only way that change

happens in the world,"

Working as a team. Eighty percent of participant's used this skill. Problem-

solving professional's work as a team with client's. Clients are on equal level with the

professionals. The professional's go to the client's level. They believe in the client's

abilities. Take time to discover the client's talents and answers within them. This skill

was specifically linked with both trauma and art.

The professional's see problem solving as a team effort. Liz described how she

began approaching problem solving with a team effort during part of her trauma

experience. She said,

When you are close to death you realize that yeah I might not come out of this

alive. Thousands of people don't, but I chose to give it my best shot, and I chose

to face the challenge along with people who would give me the support.

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She continued to describe this team effort that she uses in her problem-solving approach in small and large groups bringing many people together to be part of the solution. For the more difficult problems, she calls them big brain problems and described how she needs to gather many big brains to solve them. It was almost seen as a motivational leadership position she would take on to bring everyone together and get people on the same team.

Julie's first approach is to believe in the client's ability to have them come up with solutions, instead of the professional carrying out everything and doing all of the thinking. The professionals include the clients in the process as equal participants or consider them even more qualified to come up with solutions. Jesse described it as, "You can fail as easy as anybody else can fail. It's just that they (students) fail at something different. Your students may be failing their academics." The professionals think of their clients as part of the team.

Giving clients a choice. Ninety percent of participant's use this skill. Problem-solving professional's give clients a voice. They give clients a choice. This skill was specifically mentioned to be associated with trauma.

This skill relates to the team effort, but was very prominent with emphasis on how the professionals gave the clients a chance to choose and be heard. Deb described her view by saying, "I believe everybody has an important say." She gives all of her patient's voices. Julie acknowledged how her client's are normally given orders and she wanted to give them more freedom and options to choose from instead of choosing for them. She explained that she asks them to share their opinion and voice it with her.

Sara described how the first thing she does is give options; giving options and exploring options was another skill associated with choice. Then she gives her client's an opportunity to create their own options. She said, "They can come up with good solutions on their own so that's my initial approach." Jesse tells his student's he wants them to be honest with him and share their understanding of the problem. Jesse gives his student's a voice by telling them, "There are no stupid questions."

Andres described how it is the client's choice if they want to work on something and he won't force them. The professionals respect the client's choices. Kim explained how some student's do not follow through and how frustrating it is for her. She said, "You give them the option to make that choice though." This would take a release of power and respect for their choice. Liz explained her role by saying, "you can bring a horse to water but you can't make them drink so I do a lot of leading to water." This means she will give them the opportunity and freedom to choose, and she will keep working even when many may choose not to take action.

Self-Awareness. Ninety percent of participants use awareness. The problem-solving professionals stay in the present moment with clients and the problem. They use mindfulness to prepare for problem solving and become self-aware. The professionals help clients stay in the moment and be self-aware. They are aware of how their body feels or gut feelings in relation to problem solving. This skill was specifically linked by participants to both art and trauma.

Andres described how they have to be aware of their gut feeling and how their body feels to know if something needs to have their attention. Julie and John discussed the mental preparation they do, which includes self-awareness practices to prepare for the

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problem-solving process. John said, "It's developing the awareness of something that's rising up in me." Maddie explained how she can have trouble keeping her focus when she sees a difficult problem coming. She said, "Focusing on the person and the environment and not all the other things that I bring to my day so that is really essential sometimes." This shows how important it is to be aware of what is on her mind and how it can affect her ability to problem solve. Deb described how she has to "check herself" because it is easy to place blame on other people, or even herself. All of these professionals described taking the time to be aware of their actions and their thoughts and identifying it.

John explained the questions he asks when trying to use the awareness technique with clients: "What did you bring into the room with you and what can we leave here so that when you leave you have a different approach to your problem." John also described the use of music in their job to create this awareness within their problem-solving process. This means that their arts experience not only influences their approach but they use the art within their approach to help develop their techniques. He said, "You will notice I've been playing music the whole time that we're talking, and I play this binaural music because it has a very subtle influence on our ability to sort of relax and our ability to achieve an alpha state of awareness." Deb also described how using the music and art for themselves to clear their emotions and prepare, be in tune with personal feelings behind the problem, and stay in tune with their raw self. Sara described using the arts with their clients to create the awareness with them to help with the problem-solving process. The professionals are thus aware on a deeper level of their own body in addition to their clients and their environment, and are able to call out whatever they are sensing that would enhance or impede the problem-solving process.

CHAPTER V

DISCUSSION

The purpose of this study was to discover how professionals in the health and education field, who self-identify as an artist and have experienced trauma with chronic struggling, approach problem solving. Based on this research, arts and trauma contribute to the development of qualities and a way to transform the problem-solving approach. The problem-solving professionals consciously identify how arts and trauma experiences contribute to their problem-solving approach, and the professionals also show methods of seeing, personal qualities, and communication skills that they use to approach problem solving that is unique to any other problem-solving approach researched.

Baiocco and DeWaters (1998) explain the specific steps to problem solving: assessment, identification, planning and implementation, and evaluation. These steps are described in the results of this study, but with so much more depth and with the addition of many more techniques. Some of the participants described a three-step process, but when it was discussed, it was not a set formula that they used or even mentioned again in the interview.

This discussion of the literature shows how some of the skills are directly linked to arts and trauma experiences from previous research and other areas where there could be more research conducted. This chapter will discuss the findings and how they relate to the literature about the methods of seeing, personal qualities, and communication associated with art and trauma. Each section will discuss how the arts and trauma

literature relate. First, the overlap of the results, arts, and trauma qualities are analyzed.

Next, literature correlated to the support of methods of seeing is discussed, then personal

qualities, and lastly, communication. Findings that are similar and findings that bring

research a step further in understanding this problem-solving approach are identified.

There are many skills from the problem-solving experience found in the results of this

study that reflect the aesthetic and the trauma experience. Not all skills specifically

associated with the arts were directly said to be from the aesthetic or trauma experiences,

but they correlate. This discussion will include any comparison to the arts and or

aesthetic experiences. Then researcher perceptions, recommendations for research,

limitations, and conclusions are discussed.

Overlap of Results, Arts, and Trauma Qualities

Many of the skills, qualities, and methods used for problem solving are spread

across all of the areas of the literature discussed. Each study reviewed, cites one or many

different techniques the professionals use while crossing between all of the categories of:

methods of seeing, personal qualities, and interpersonal communication. The discussion

of the literature begins to show the correlation, overlap and the circular nature of all three

categories (methods of seeing, personal qualities, and interpersonal communication) and

how they work synergistically to build this artistic way of problem solving. The circular

link where each category supports one another is evident in the results from the

participant interviews and it is also present in the literature.

The results from the study showed how the personal quality of no judgment

correlates to the communication skill of trust (to be free of judgment in the problem-

solving process, one must extend trust), and the quality of intuition is correlated to the

communication skill of listening. The skill of listening includes listening to the non-verbal, which includes what the client is not saying and is correlated to the quality of intuition to be able to pick up on the things the client does not say. Additionally, personal qualities, such as empathy, can be a platform for methods of seeing, such as the ability to see more.

The literature also shows how the methods of seeing, personal qualities, and interpersonal communication skills are circular. Methods of seeing leads to the use of personal qualities. The literature shows this when Albrecht (2002) explained that the creative mind leads us to the use of qualities. Such as the aesthetic experience and the influence of the perspective created from the aesthetic experience (method of seeing), which leads to more intuition (a personal quality) (Shusterman, 2015), and the perception of the aesthetic experience (method of seeing) leads to qualities of no judgment (personal quality), such as not judging on beauty like Shusterman (2006) explained. The participants of this study also made correlations of creativity (a method of seeing) linked to letting go and flexibility (personal qualities).

Qualities leads to communication skills. The literature shows this when Fine (1990) described how the sense of belonging needed in trauma includes love (a personal quality), connection, and taking action. Which takes us back to communication required to make that connection or action taken. These qualities could include the skills of positive reinforcement and advocating or motivating for the client, which are found in the results and the positivity and action discussed by Tedeschi and Calhoun (1995). And lastly, communication leads to methods of seeing. The literature shows this when Sager

(2015) explained that the communication in an aesthetic experience leads to perspective transformation.

Many of the skills discussed in the results section show how those same skills are directly related to art and trauma. The question in the interview specifically asked about skills or qualities from arts and trauma and the participants communicated all of those previously discussed. However, some participants made a specific link or emphasis about a skill or quality and how it related to art or trauma. Most of the respondents had both arts and trauma specifically linked.

Many of the skills and qualities found were described as coming from both their arts and trauma experiences. This means that arts and trauma can together help develop the skills used. Many of the skills and qualities discussed by the participants were consciously identified as coming from their trauma and their arts experiences such as resourcing, empathy, humility, resilience/perseverance, depth of emotion, making connections, seeing depth, and more.

Both of the aesthetic and trauma literature qualities, skills, and methods listed in the tables below were discovered within this study and are used in the professionals' approach to problem solving. The codes and categories in the results may not be named the same as the codes listed on the tables taken from the literature, but the essence of the meaning for all of them can be found within the results. The only category of the trauma qualities that was not as developed was the "Self" section from Table 2, which is now dispersed into the qualities and skills categories from the results. This is because the focus of this study was not on the self but qualities in relation to problem solving. There were a few that came up such as confidence, self-assessment, self-observing etc. The

highlighted sections on Tables 8 and 9 below are the only qualities that were not more

specifically found and identified, but are clearly correlated to other tools used by the

professionals. That is not to say that if more inquiry was conducted that it would not be

found.

The literature contributes to a great deal of the methods of seeing, and

interpersonal skills for Table 8. However, this table shows how less of the aesthetic

literature contributes to the personal qualities. The table verbiage has been kept in the

verbiage of the literature review tables, but sectioned into the same categories as the

results from this study, which are interpersonal skills, personal qualities, and methods of

seeing with the addition of the process skills category mentioned in Table 7 (the process

skills were not as strong as the other categories, which is why they were not discussed in

the results section). There are many skills and qualities listed from the literature review

that are mentioned with similar words under the themes of the results. For example, the

word "Faith" in Table 8 from the literature is seen in the results in Table 7 under "Hope"

and "Spirituality". The tools taken from the aesthetic literature in Table 8 that are not

specifically mentioned in the results are: focus on discovering meaning, uses all senses,

discernment, and subtle discrimination.

Table 8. Qualities taken from the Aesthetic Literature, Now Shown in Study Results
Categories.

METHODS OF SEEING	INTERPERSONAL SKILLS
Refined senses	Emotional intellect
Uses all senses	Consciousness of body
Sensitivity to tension and harmony	Fully present
Making connections to other subjects and the problem	Curiosity
Faith	Intellectual/knowledge(understanding of the experience)
Allow sound and emotion to influence	Open to new learning and knowledge-experiential and theoretical

Table 8. cont.

METHODS OF SEEING	INTERPERSONAL SKILLS
Heightened mind connecting ideas and new emotions	Inner dialogue and verbal communication-networking
The senses include how their mind and body perceives and is part of the experience	Expressive communication
Spiritual-beyond the physical body	Use life experience to understand and make meaning
Explore deeper past sensory instinct	Rational thinking and Deep thinking
Perceive the textures and contrasts in experiences	Intellectual freedom
Seeing the depth to experience and interaction through all the senses	Asks questions
Perception skills that allow deeper experiences	Emotional (creating emotions)
Physical perception	Open to opportunities for more than one reaction or idea
Feelings and Intuition	Communication (skill to bring together the emotional intellectual with the visual)
Intuitive judgment	
<mark>Discernment</mark>	
Spiritual inspiration	**PROCESS SKILLS**
No routine/abstract formula	<mark>Focus on discovering meaning</mark>
Seeing emotion	Do not focus on the problem
Seeing the big picture	Focus on process
Seeing the details	Reflective
Seeing meaning	Unconscious/conscious processes
See beyond what is currently there	Intelligent evaluation
See more than one answer	Exploration
See beyond one's own experience	
Train the mind to see qualities into the experience	**PERSONAL QUALITIES**
See more dimension	Understanding the qualities within experiences
See past initial senses and instincts	Zero judgment
See more than what is in front of them	Go beyond the letter of the law
Higher consciousness-heightened state of mind	Attitude
Imagination and sensory intake	Experiences not bound to one type
Use art experience and personal experience	
Use and know how to create aesthetic experiences	<mark>Subtle discrimination</mark>
Perceptual (visually engaging)	
Meaning making between art and problem-or is the problem the art-inquiry	
Create ideas never thought of and unknown	

The trauma literature contributes more to the interpersonal skills, personal qualities, and methods of seeing more evenly than the aesthetic literature. However, when comparing the two charts, the aesthetic literature contributes more to the methods of seeing. The specific qualities in Table 9 that are not clearly identifiable in the results for

this study are: find true self, survivor pride, self-reliance, extraverted, anticipate, and do

not imagine far from reality.

Table 9. Qualities taken from the Trauma Literature, Now Shown in Study Results
Categories.

METHODS OF SEEING	INTERPERSONAL SKILLS
Capacity for observation-sense details, sensations, words, visuals	Remember the benefits
Religious belief=faith	Exploring benefits
Spirituality	Explore
Insights	Aware of needs of others
See more hope	Connect with others
See more dimension	Emotional intellect-act while controlling behavior
See deeper	Focus on relationships
See details	Emotional expressiveness
Philosophy of life	Ability to describe meaning
View of the world	Open to internal experience
Saw something different	Creative communication
Perceptual memory-sensory experience	Self-disclosure
Connect the new and old	Learning
Live in the present	Acknowledging emotions
Focus on future	==Extraverted==
Self-perception	Social support
Sense of purpose	Family closeness
Order out of chaos	Community closeness
Search for meaning	Sense of belonging
Global and situational meaning	Interpersonal relationships
Philosophy of life	Compare other people and their situation
Positive reinterpretation	Stronger connection
Heightened adaptation-psychological functioning life awareness	Growth-meaning found with creativity, suffering and love
Coping skills-think of short term and long term benefits	Construct new meaning
Conscious and unconscious change	Find meaning in trauma and use it as part of life story
Creative	Go against the norm or traditional
	Learning a lesson from adversity
PERSONAL QUALITIES	Self-observing-take care of self
Empathy	==Do not imagine far from reality==
Positive view of self	Deliberate rumination or thought
Create positive meaning	Self-assessment
Resilience	
Flexibility	PROCESS SKILLS
Vulnerability	Redefine expectations
Wisdom	Priorities
Feeling of compassion	Ability to step back
Increased compassion	Does not focus on problem
Accepts suffering and let go of control	Alternative plans to achieve goals
Optimism	Active planning
==Find true self==	==Anticipate==
Self-efficacy	Active coping
Gratitude	Reflection
Better understanding of life	Contemplation of the people you love-memories
Meaning in self-regulatory activity	Finding meaning in action
Self-improvement-skills and interests	
Stronger person	
Self-capacity	
==Survivor pride==	
==Self-reliance==	

Table 10, which was created to show how some of the same qualities that came from arts experiences also came from the trauma experiences, mirrors the results found in the interviews. The interviews revealed that many of the skills were consciously acknowledged to have come from both arts and trauma experiences including spirituality, ways of seeing, and ways of communicating. More research could be conducted to carefully consider if each skill from the charts and results could be developed from both arts and trauma experiences. There was no overlap of personal qualities from the literature. However, there was an overlap that was found within the results of this study showing that personal qualities were correlated to their trauma and arts experiences.

Table 10. Aesthetic and Trauma Quality Overlap, Now Shown in Study Results Categories.

WAY OF SEEING	INTERPERSONAL SKILLS
Spirituality-beyond the physical body	Go beyond letter of the law/go against the norm or traditional
Insight/intuition	Emotional Intellect
Heightened awareness or sensitivity to the sensory experience	Expressive communication
See big picture	Open to learning
See deeper/more than what is in front of them	Find meaning in the life experience
See more dimension	
Ability to step back/see beyond own experience	**PROCESS SKILLS**
Making connections/new and old/to other subjects and the problem	Search for meaning/discovering
	Using the art/trauma experience
	Reflection
	Do not focus on the problem
	Exploration

Art as the Catalyst

This section briefly describes how using art as a catalyst and a healing element, is included in the professional's problem-solving process. Fine (1990) discusses Hamburg, Coelho, and Adams (1974, p. 413) about how continuing to work on skills can change outcomes. Most of the professionals did not continue to work on their art during their trauma, but they continue their art now, which impacts their problem solving. This means

that doing the art through the difficult problem solving time in their life does change the outcome. Richman (2013) explained that trauma can be transformed by art. A new perspective is discovered from the creation of the art because of the trauma. This study found that the professionals stop using art during the trauma, but a time comes when they have reached a point where they are ready to heal and they use the art as healing. That artistic healing acts as a catalyst to allow them to begin to use their skills developed from their trauma, but also enhances their skills to an even higher level gained from the original arts experience/talents.

Participants of Shepherd, Reynolds and Moran's (2010) study about adolescents and their recovery from adversity and building resilience described how there was a catalyst of pivotal moments that started recovery. However, this study on problem solving found that participant's described how family members and the pain began the catalyst movement to recovery, but that using art as healing was the real crux of it. Many of the professionals described how their art became this center of healing. Many of the professionals described that although they did not do art during the trauma, when they started again, they used the arts for both therapy and healing.

Laub and Podell (1995) wrote, "The art of trauma, because of its indirect unaestheticised and dialogic nature, may be the only possible medium for effective representation of trauma" (p. 991). Not only may this be the only effective medium for representation, but it may be the most effective way to cultivate those talents gained from trauma and previous arts experience (now using art as a healing avenue in addition to other art purposes) to gain and develop skills that can be used to enhance the problem-solving approach.

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Creativity is increased by trauma, and extra growth from trauma happens to those who are creative, which can lead to more creativity (Tedeschi & Calhoun, 1995). The figure below was created by the researcher to demonstrate Tedeschi and Calhoun's (1995) theory.

Creativity   ⟶   Extra Growth

Trauma   Creativity

Figure 2. Tedeschi and Calhoun's theory of creativity and trauma (1995). This figure illustrates the associations made about creativity. There were many different claims made about creativity by the authors, and the researcher created this figure to connect those theories.

This means that the trauma and arts experiences increase the creativity, in addition to being the foundation for understanding about how the professionals use art as a catalyst to developing the problem-solving skills. This also relates to using the arts as healing, which led to more problem-solving skill development. Tedeschi and Calhoun's (1995) theory on growth and creativity relates to the pathway for problem solving in relation to art and trauma outlined in this study that the researcher created from the data: 1. Art impacts problem solving. 2. Trauma opened up another level of problem solving, 3. Trauma opened up another level of art and changed the way art was used (impact on skills), 4. Then the professionals used art as healing because of trauma, which increased arts impact on problem solving 5. Which then by using art as healing, helped healing from trauma and developed access to the skills from trauma. The figure below demonstrates this theory.
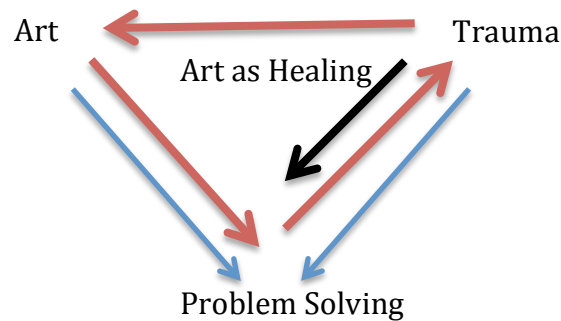
Figure 3. Problem Solving, Art, and Trauma Theory. This figure illustrates how the arts, trauma, and using art as healing correlate to problem solving.

The creation of the art because of the trauma can create additional meaning (Richman, 2013), which correlates to how the professionals use art differently after trauma as a way to heal. The professionals also use the art differently after the trauma, such as the examples where art becomes more personal or more of a hobby. The trauma and using art as healing brought both trauma and arts skills to a new level for all participants.

Methods of Seeing

"Methods of seeing" is an element found in all categories of the literature including creative problem solving, trauma, and aesthetics. The contributions from both art and trauma are discussed. The section on "methods of seeing," discusses how the results and the literature contribute to the understanding of the different methods the professionals use such as seeing many perspectives, making connections, seeing more depth, and many more. Other personal qualities such as love, and communication skills such as listening, are sprinkled throughout the discussion of this literature because the skills and qualities overlap. The discussion demonstrates how they lead to one another

and support the development of all the problem-solving professionals' methods of seeing, personal qualities, and communication skills.

Marguc, Förster, and Van Kleef's (2011) results show that the distraction of obstacles helps solve problems by encouraging a wider perspective. However, their research did not include the solving of serious life problems, which could narrow perspective. The professionals explained how their approach did not change much from general problems to complex problems. And to keep their focus, they take time before a meeting with clients to focus and become mentally self-aware of themselves so they can focus on the client. Additionally, the professionals used art to help prime their minds for difficult problems or groups of people. They are excited by problems, so instead of shutting them down, their mind opens similar to how Marguc, Förster, and Van Kleef's (2011) describe the widening of perspective.

Kanter (2011) explained that having the ability to zoom in and out to the details and the big picture could save lives. The professionals all discussed using this talent. It was also described by Kanter that this is particularly important during crisis, and many participants discussed their more difficult problems in association with crisis. This means that their ability to have flexibility to shift using different perspectives zooming in and out as needed could save lives!

Kanter (2011) discussed how zooming in and out allows a person to make connections, but based on this study's results, making connections and making holistic connections outside the office to the client's life was a separate skill and should be considered separate. The participants make connections to the client's life, but also keep the values and goals aligned with the client.

Dewey (1910) described how more meaning and fuller results are found if there is time for reflection, curiosity, and experimentation because the first idea is not taken resulting in many options being created and explored. The professionals not only take the time to reflect, but they try new things and many different options. They experiment, explore, and ask a lot of questions to stay curious. The depth of reflection determines the type of thinking that results in deeper planes of thinking (Dewey, 1910). The professionals results showed a great deal of seeing past the surface, they look for a more root cause. Both the art and the trauma were mentioned as giving this depth to this way of thinking and seeing.

Dewey (1910) described many education environments where there is only one right answer, and the professionals in this study say there are many different ways to get to the end result. Additionally, the "right answer" or solution has a very different meaning to the professionals. They consider solutions to be more resolutions; solutions are a work in progress, a way to manage the problem, progress, etc. The process and the end results do not point to one way to get there or one way of seeing the process and solution.

Inductive and concrete judgments and thinking are both needed, according to Dewey (1910). "A person who has at command both types of thinking is of a higher order than he who possesses only one," according to Dewey (1910, p.142). The professionals use logic and abstract thinking. They have a flexible mindset to be able to shift depending on what the problem needs. Liz explained that it is a balance between science and art. Another professional directly related this skill to their arts experience. Dewey (1910) described another skill that is part of this called discernment. It is unclear whether the

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results from this study include discernment. This is another skill that could be similar to intuition.

Art

The theoretical framework discussed how this aesthetic constructivism perspective is how we construct more than one truth (Crotty, 1998). The professionals look for more than one truth or more than one solution. Constructivism and the arts is about, "open perspectives, untapped perspectives; it is to look out windows never opened; it is to climb stairs never attempted, and look for keys to unknown doors" (Greene, 2005, p. 130). Participants are very open to try new things and are willing to try many options until one works. Matt was willing to go to the state capital and advocate to change laws and take action on the government and legal level and do things that were never attempted before.

A person must learn to look beyond the object and see more than the object (Greene, 2005). The professionals see beyond to see different dimensions of experiences associated with their clients allowing their senses to surpass their initial instincts, as Gadamer (1975) described instincts. They listen for what is not being said and what the client's body is communicating.

Berger (1972) and Fields (2007) both describe how perspective work and problem solving happens during the creation of art. Many of the professionals described how the way they saw their art and the problems addressed in art were metaphors to how they approach problems. This clearly shows the link between arts experiences and the professional's problem-solving approach. Aesthetic analysis includes comparing and perceiving the different textures in art (Fenner, 2003). Once again, this talent is included

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under the categories of connections and seeing more. The professionals see past the surface and make connections to find the root cause. They compare and contrast. Maddie said, "Art allowed her to see more visceral aesthetic experiences."

The professionals see the details, the big picture and make connections. However, they also look past the canvas to see more than is there. These skills are exactly what Willard (2003) discussed when describing the skills used to paint. Willard (2003) explained the skill of seeing the details, seeing the big picture, and seeing how to put all of the pieces of a work of art together as a unified piece of art are all skills used when painting a piece of art. The professionals see what is not there yet, which was a skill correlated to art and trauma experiences. Their ability to incorporate hope is also part of seeing what is past the canvas. They hope for the resolutions in the future that are not there yet, but they hold the vision of hope.

Envisioning the end result is also discussed as part of the aesthetic solution process (Fields, 2004). The professionals use visual aids to help, they envision the big picture, they seek to prime the pump, they invite clients to imagine what solutions look like, and they also envision all of the connections and factors that play a part. There is also the idea that sometimes people can't see the end result, but when this is the case, the professionals discussed their hope and faith.

The professionals research problems, but they also use their personal qualities to stay open with no judgment and are willing to experiment with the client's suggestions and create new ideas and options, just like the experimental risks Douglas is described as taking in the creation of art. Skills included by the painter (Willard, 2003) include making connections, seeing past the details, and making connections beyond the problem. The

professionals made holistic connections to the client's life outside of the office. The researcher believes this is a more unusual talent when compared to the other abilities discussed in the literature. This skill was discussed with emphasis as being linked to trauma, however, even though the arts literature discusses this more. The professionals can see contributing factors, influences, and implications.

Dewey (1934) described how aesthetic experiences are also created by imagination with inner and outer vision, in relation to art. This inner and outer vision with imagination could be the creative and visionary skills with the detailed and big picture seeing skills. Intuition involves combining the old and new and depth that is below the surface (Dewey, 1934). The professionals spend time making connections, using their experience, and looking below the surface. The participants identified intuition as a separate skill or quality from connections, but Dewey sees how they are related. This means that the professionals might be using many intuitive skills to see more.

Aesthetic experiences are considered to include a spiritual and intuitive experience being intellectual and physical (Frois & White, 2013) and so is the problem-solving experience for the professionals. A person can feel beyond when using their spiritual mind, specifically referring to art (Frois & White, 2013). This could mean the professionals' spirituality used in problem solving is also linked to their ability to see more than is in front of them. Jones (2014) explained how a person can see in three dimensions, the ability to see beyond the art. The professionals actually said they see many dimensions or 3-D because of their ability to see so much farther than the canvas.

An aesthetic experience requires people to be trained to be able to understand so that the person is trained to see (Csikszentmihalyi & Robinson, 1990). The professionals described how their trauma helped them understand more about problems and the implications, which also correlates to their ability to "see" more. Their experience in trauma and art allowed them to see more of how the trauma affects a person and look past the issue. Thus, the problem solving in art is correlated to how they approach problems with their clients. The art experience takes into consideration what the artist means, which could be the client's meaning, their story/history and the professional's history. A museum curator who was interviewed stated,

> …to really have the object hold for long periods of time, that's more a learned thing. You only see what you are taught to see. You have to be taught to see a certain amount before you can go from that and develop a more sustained and creative process of seeing. (Csikszentmihalyi & Robinson, 1990, p. 42)

This could mean that the trauma has taught them to see more because the professionals say they have more understanding and can see more because of their trauma and art experience. The trauma and arts train them to see more holistically and see more connections to enhance the problem-solving process.

We have five minds and one is the creative mind, which is where solutions are found (Albrecht, 2002). The professionals are very creative minded. The creative mind uses listening skills, less ego, less judgment, exploration, original thought, and seeing many options. The professionals practice a lot of listening, they separate themselves and their ego from the situation, they are open with no judgment, they are willing to try new things and explore, think creatively without the box ideas, and see many different options

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that are possible. They use their "creative mind."

Creativity

     Art. Michalco (2011) explained that, "Thinking in terms of essences and principles frees your imagination from the constraints of words labels and categories" (p. 49). The participants think without formulas and use a balance of logic and abstract thinking. These problem solvers do more than think creatively. Michalco (2011) writes how creative thinking includes connecting two different ideas together. The participants connect many different ideas and create new ideas but they also focus on the person as a whole, use trust as a problem-solving technique, or even exchange stories to create the bond that is needed for problem solving.

     Design thinking encourages innovation and exploration (Clark & Smith, 2008). The three intelligences used for design thinking are emotional, integral, and experiential. The professionals practice emotional intelligence because of their ability to see from another's perspective, their empathy, and using logic and abstract thinking with intuition. Integral intelligence is practiced by the resourcing and connections they make, zoom in and out, and by their ability to evaluate their client's needs. The experiential intelligence is shown by being in tune with the different senses even when it is their own body, and also by tuning into their client's sense and what they are communicating verbally and non-verbally. The researcher would argue that there are more intelligences being used by the professionals because of their ability to see beyond what is in front of them.

     Gadamer (1975) wrote, "….the play impulse was to bring about the harmony between the form impulse and the matter impulse. The cultivation of this instinct is the goal of aesthetic education" (p. 73). The participants discuss art as a priming tool and

playfulness and this impulse, which is very similar to the improv and instinct described

used in art, is also used in problem solving. It is a mix of logic, abstract, and intuition and

they switch with flexibility between them, as it is needed.

Cultivated consciousness described by Gadamer (1975) is the idea that people

should take in all the ideas around them to create their reality. Those with trauma and arts

in their background do have a stronger ability to take in more of what is around them.

Many participants described how their aesthetic awareness, the ability to see more, and

the ability to take that in is far greater because of their experiences. Gadamer (1975)

described how we should hold off judgment, and participants show how important no

judgment is in the problem-solving process and to let the client's agenda guide them.

Gadamer (1975) explained how important it is to use playfulness to go beyond judgments

and explore to see the aesthetics and qualities of an experience. Participants describe how

important it is to explore and use play. Liz, in particular, described how using art as

something playful, helps her prime her pump to see different perspectives.

Trauma

The trauma literature under methods of seeing, highlights qualities such as: hope,

intuition, seeing the big and small picture, seeing more, seeing many perspectives, seeing

many ways. It also connects the skill of awareness and giving the clients a voice. The

professionals focus on the present when they are practicing awareness. They facilitate by

being present. They also look to the future by the hope that they incorporate in their

approach by understanding that with hope and faith, better times will come again. These

perspectives mean that they have more creativity, according to Davies (1997). Davies

used Frankl's (1984) term "tragic optimism," (finding meaning in the midst of tragic

circumstances), which can be created by doing artwork, loving, and making connections. These are all techniques used by the professionals.

Looking to the future, humor, acceptance, and contemplating things you love are things that impact survival in trauma (Frankl, 2006). The professionals are looking at situations with hope for the future, they use humor, and they also use acceptance but this would also relate to letting go of what you cannot control and in contemplating love; reflection was used but also gratitude and thinking of the things they love. They use a lot of love towards the clients, so they not only think about it, they use it as part of their perspective. Living in the future and the present are both healthy perspectives to use during trauma and living in the present results in more creativity (Davies (1997), and the professionals use hope, which keeps a perspective towards the future. However, they also focus on managing how problems affect the clients here and now.

Jacobsen (2006) described how crisis allows people to see deeper. The professionals see from different perspectives and they see more-they see deep past the surface, and the professionals gave credit to art and trauma for that skill. Janoff-Bulman (1992) described how perspectives of the world are changed because of trauma including the global and situational perspective, the perspectives Park and Folkman (1997) discuss. Park and Folkman (1997) explain how "global" is overall purpose and "situational" is finding meaning in the situation, but they also mention relating the situational meaning back to the global meaning. The professionals switch back and forth from the details to seeing the big picture. They also consider what the client's values and priorities are and take those into consideration. They focus on the daily goals and the overall purpose, which means they see the meaning in them but also consider the clients when developing

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the meaning. Thus, the awareness of the global and situational perspectives in trauma is also given meaning and awareness within the professionals' problem solving. They might also do this by looking through the client's perspective. Seeing through the client's perspective was directly correlated with art and trauma experiences.

Coping with trauma includes looking at the short and long-term benefits (Aldwin & Sutton, 1998), which includes the skill of seeing the details, the big picture, and the priorities or values for the client. More benefits to adversity are found when people find alternative routes (Affleck & Tennen, 1996). The skill of finding alternative routes is one that the professionals use. They see many options and ways to finding solutions or finding a root cause.

Survivors have the ability to reinterpret information and transform experiences, which also involves finding new meaning and processing consciously and unconsciously (Janoff-Bulman, 1992). Part of this process described by Janoff-Bulman (1992) means connecting new and old assumptions. The professionals connect variables, contributing factors, links between body and emotions, etc. This could be considered connecting new and old assumptions; a skill learned from surviving trauma. Some of the professionals mentioned how some of the processing is conscious and unconscious but that could also be related to their skill of taking time to reflect on the situation and become more aware. Finding new meaning could be connected to the categories of love and empathy but also their desire to explore new options.

Personal Qualities

Personal qualities is a category that is found layered in both the methods of seeing and communication skills categories of results. The contributions from both art and

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trauma are discussed. Personal qualities reviews how the results and the literature contribute to the understanding of the different qualities the professionals use such as love, humility, intuition, and more. Other methods of seeing, such as hope and seeing more depth, and communication skills, such as non-verbal listening, are sprinkled throughout the discussion of this literature because the skills, methods, and qualities overlap. It is discussed how they lead to one another and support the development of all the problem-solving professionals' methods of seeing, personal qualities, and communication skills.

Compassion was a skill discussed by participants, which also relates to love and empathy. The compassion needed by business leaders in their organization for healing after crisis from Dutton, Frost, Worline, Lilius, and Kanov (2002) is also part of the problem-solving process. However, when this compassion and steps of assessment etc. are combined with all of the other qualities found in this study, problem solving could have a much larger impact. The professionals believed their approach was more effective when including all of their techniques, including love.

Art

Fields (2004) discussed the artist's problem-solving process, which is more intuitive and is not a step-by-step process. The professional's process is not a step-by step process either. There is no formula and it is an intuitive process.

Aesthetic experience includes no judgment (Fenner, 2003). Using no judgment and trying not to change the client's perception, even when it is not based on reality, is very important to the professionals. The professionals use insight, and use their expertise and past experience to make good judgment calls. They also assess and evaluate. These

are similar to the qualities associated with aesthetic sensitivity: insightful perception, sound judgment, subtle discrimination and intelligent evaluation are qualities behind aesthetic sensitivity (Zuo, 1998). Thus, professionals could be described as having aesthetic sensitivity.

Liz and Kim described how they look for the beauty in everything, but it was a very prominent idea that the trauma caused a great deal of negativity in order to gain the skills. This means that things do not have to look a certain way, all problems are different, and not everything is going to look "pretty." Shusterman (2006) described aesthetic experiences as including sensory, perception, and beauty. The professionals described how certain artwork projects did not turn out the way they planned, and it was related to their problem-solving skills. This could mean that not only does beauty not have to be part of the aesthetic experience (like Caroll (2012) was explaining) but that the problem-solving experience does not have to look a certain way either, which relates to the quality of no judgment. The argument as to if aesthetic experiences have to include beauty would be the same argument for the problem-solving experience; the professionals do not make anything look a certain way. However, the sensory and perception aspects Shusterman (2006) described are a big part of problem solving relating to methods of seeing such as seeing more depth, the qualities such as no judgment, and all of the ways the professionals describe their sensory skills such as intuition and sensing non-verbal or picking up on what is not said by the clients.

Trauma

Survivors gain a new understanding because of trauma (Tedeschi & Calhoun, 1995) and the professionals use this new understanding in problem solving. This

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understanding was related to the quality of empathy for the professionals. Affleck and Tennen (1996, Thompson (1985), Park and Murch (1996), Tedeschi and Calhoun (1995), and Carver and Scheier (1989) all discuss the benefits from trauma and the resulting positivity. The professionals did not focus on the one skill of positivity, but rather went deeper and had related skills such as hope and the continual search to manage problems instead of having a focus on solution.

When the Constructivist Self Development Theory is applied to trauma, there are five areas of change to the self from trauma and four of the five areas apply to this study's results: frame of reference-self and spirituality, self-capacities-the capacity to connect with others, ego resources, central psychological needs-control, trust, and safety, and the perceptual and memory system- sensory experience (Saakvitne, Tennen, & Affleck, 1998). Not all of these areas are specifically mentioned as coming out of the trauma experienced by the professionals, but they are all areas mentioned by them as part of the process. The professionals use spirituality as an influence, they focus on connecting with the clients, they separate themselves from the situation and set aside their ego using humility, they let go of control (specifically mentioned to correlate to art and trauma), and create trust with clients to create safety. The perceptual system sensory experience could be linked to the skill of seeing more. They have more depth and art (therapy) experiences, which gave Maddie the ability to see more viscerally or aesthetically.

The professionals have revealed resilience from their trauma and art. The idea of resilience was revealed as a philosophy to approaching problems because the professionals do not back away from problems. Stressful situations can reveal resilience

(Fine, 1990). The professionals reassess, reflect, and try again when something does not work. They do not give up and they do not take no for an answer. They learned to not give up if something is not working, they keep repeating until they can make it work, and are willing to try a different approach until one works. This skill of trying a different approach until one works, was specifically explained with art examples by the professionals.

The professionals use love, empathy, compassion and gratitude through the process of problem solving with clients. McMillen and Cook (2003) found that compassion and gratitude was a positive-by-product from traumatic spinal cord injuries. These qualities of compassion and gratitude were not as high as love and empathy, but could be seen as a by-product from the same qualities of love and empathy or humility and trauma experience.

The professionals described how love was one of the main ways they approach problem solving. People find meaning using love, creativity and suffering, according to Tedeschi et al. (1998) who cites Frankl (1961). The professionals also use creativity and out of the box thinking. They use their past experience, which could include their suffering from the trauma. This means that they are creating meaning when problem solving; the professionals are creating meaningful problem-solving experiences.

Frankl (2006) described how love changes the outcome of trauma. He discusses that pondering about the things you love is a technique he used and it is also a technique that problem-solving professionals use with their clients. They love their clients and students so much that they consider them their own children. This could be concluded then that the love changes the outcome and impact.

Finding a sense of belonging in a group can enhance the survival rate of someone experiencing trauma. Finding a sense of belonging can look like reflecting on memories of loved ones, taking action with the group, or finding different ways to connect on a deep level allowing people to find value and meaning (Fine, 1990). The professionals do exhibit these skills in many ways. Love, compassion, empathy, and expressing how the clients are not alone and the team effort used by the professionals is how they create a strong loving group effort. They connect on a deep level with clients and focus on communicating expressively. They also take action with the clients. This survival discussed by Fine (1990) shows how little resources are available sometimes, but how much impact this group belonging has, and how much it can change. That means that the professional's desire to connect and loving the clients could really change the outcome.

The professionals have increased confidence directly related to their trauma and they use it in their problem-solving process to have confidence in their abilities. Other changes that occur from trauma includes philosophy of life, interpersonal relationships, and self-perception (Tedeschi & Calhoun, 1995). The professional's philosophy is holistic and using a lot of love in the client's relationship with them allows them to work as a team. Change and growth happens when people positively evaluate their life and perspective after the trauma, and let the trauma be part of their life (Tedeschi & Calhoun, 1995). The professionals use both of these skills within their problem solving but also allow for continued growth, learning, and education within their problem-solving approach. This means they allowed for growth from their trauma and their problem solving and the skills continue to transfer.

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Transformation, innovation, and creativity are all skills needed to find solutions in trauma (Janoff-Bulman, 1992), and could be skills that the professionals used in their trauma and how they show up in the results to their problem-solving approach. The professionals are okay with and invite change, which could be part of transformation. Innovation could be considered part of their desire to try new things and explore to find new options. Lastly, they are also very creative and go against the norm.

Using more than one coping strategy is more effective the more problems there are, allowing more than one benefit. This means the skill of flexibility and coping brings more benefits (Collins, Taylor, Skokan, 1990). This means that the professionals use flexibility that results in more solutions and benefits.

Interpersonal Communication

Interpersonal communication is a category found in both the methods of seeing and personal qualities used by problem-solving professionals. The contributions from both art and trauma are discussed. The interpersonal communication skills section reviews how the results and the literature contribute to the understanding of the different skills the professionals use such as giving client's a choice, teamwork, discussion, expression, and more. Other methods of seeing, such as hope and creativity, and personal qualities, such as letting go and empathy, are sprinkled throughout the discussion of this literature because the skills, methods, and qualities overlap. It is discussed how they lead to one another and support the development of all the problem-solving professionals' methods of seeing, personal qualities, and communication skills.

The professionals take the time to freely and openly talk and discuss before they jump to any conclusions or action. Baiocco and DeWaters (1998) and Dutton, Frost,

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Worline, Lilius, and Kanov (2002) discuss problem solving and they start with immediate assessment and taking action, for example. The professionals start with this openness that brings so much more freedom to the beginning of problem solving and develop trust with the clients.

In the theoretical framework, Crotty (1998) is quoted describing how meaning is created and "being constructed in and out of interaction between human beings and their world, and developed and transmitted within an essentially social context" (p.42). He described how there is no meaning to an object until a person comes in contact and "constructs" the meaning. This lens of the creation of meaning within interaction is part of the problem-solving process because participants showed how teamwork was very important to the problem-solving process. The professionals worked as a team with their clients giving the students a voice, a choice, sharing and exchanging stories, and connecting to the clients. The problem-solving professionals take into account the whole person and personal situation, and they also create a deeper meaningful relationship before solutions are found. Thus, the professionals construct this depth of meaning to their problem-solving approach with the interaction with clients, and meaning is constructed in their problem-solving process. The problem-solving process is not just a process or motions that they go through. Greene's (2005) description of how learning is individual but also a group discovery of meaning is very true for this study. The participants discussed how there is discovery, a team effort, and the teaching and learning process that is allowed in the exploration of problem solving.

Art

All of the qualities and skills said to have been included in the aesthetic experience by Csikszentmihalyi and Robinson (1990) are represented in the problem-solving process by the professionals which include: the perceptual (visually engaging), such as the ability to see more or the bigger picture, emotional (creating emotions), such as the ability to express such depth, intellectual/knowledge (understanding of the art), such as the ability to understand what the clients are going through, communication (bringing together the emotional intellectual with the visual), such as the ability to communicate so thoroughly and clearly, and the dialogue with the art (or within it), such as the ability to have such depth of dialogue with the clients and the problem they are considering. This shows how the aesthetic and arts experiences strongly relate and resemble skills described in the problem-solving experience by those who self-identify as artists.

Sager (2015) described musical qualities that create meaning to encourage the aesthetic response, which include different forms of communication (verbal and non-verbal musical qualities), sincerity, deep emotions conveyed, personal testimony and religious conviction. These qualities are very similar to the ones that the professionals use for problems solving. Sincerity was found as a quality and the professionals are very in tune with their emotions and communicating them to the clients. Sometimes they share their own story with the clients and share their success story as a testimony and example of hope. They listen to their gut and allow their intuition and spiritual side to influence them. They are determined to do what is right, and take their job seriously.

The professionals use their life experiences and story sharing within their problem-solving process in addition to using art as part of their self-awareness practices, using art as part of their work with the clients, and using art to help think about the problem. This is very similar to how the aesthetic experience is described as a mix of life experiences and information from the artwork, according to Csikszentmihalyi and Robinson (1990). Many of the professionals also described how their highest aesthetic experience gave them a message about their problem solving that they could take away and use. The aesthetic experience, which includes information from the artwork as Csikszentmihalyi and Robinson (1990) describe it, could be thought of as connecting information from the client's situation or be considered the stories shared and trust created between the clients and the professionals. This creates the connection discussed by the professionals, which could be the aesthetic experience created. This information and story sharing creates a place for the clients to open up and create trust. This could also include the shared experience of the creation of the art that some professionals create with their students.

The professionals take time to be more aware of themselves, their environment, and the client. They acknowledge their gut feelings, how their body feels, meditation and breathing, and bringing forth their consciousness. Shusterman (2015) includes the body as part of the aesthetic experience, and explains how a person can sense more when they are more aware of the body and the senses. This skill of having the ability to sense more from an aesthetic experience is also used by the professionals in their problem-solving approach. Andres specifically mentioned that they try to be aware enough to

acknowledge where they hold their trauma within their body. Additionally, they try to listen to what the client is not saying and intuitively being aware of the client.

The professionals focus on the client, the contributing factors, the situation, and the results from the problem, they reflect on the problem and give clients a chance to reflect, and they also ask a lot of questions, such as asking why. Meaning making occurs in art by using the skills of focus, reflection and questioning (Frois & White, 2013). The reflection and questioning that Frois and White (2013) discuss as meaning making in art are also the same skills used by the professionals in their problem-solving approach, thus this is where meaning is made in art and problem solving.

The openness the professionals exhibit is also similar to the openness Caroll (2012) used to describe aesthetic experiences. Caroll (2012) explained how art should not be required to have a specific aesthetic response and that not all aesthetic experiences are the same. The professionals are open to many results and experiences and do not require a specific response from clients. They also do not require the clients to do anything; clients have a choice. Even if the professionals do not agree, they will respect the choice of the clients.

The professionals share and exchange stories with the clients during the problem-solving experience while working with the clients as a team, in addition to resourcing or networking. Artwork is more meaningful when there is social interaction about the artwork experience (Frois & White, 2013). This would mean that the professionals are creating more meaning with their clients because of this social interaction and teamwork; a skill that the professionals consciously correlated to both their art and trauma experiences. Artful communication requires awareness and a focus on meaning, process

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(not the end), and on the needs of you and others, based on Dewey's theories (Stroud, 2008). This would also describe the professionals as having artful communication because these skills are included in their communication skills used in problem solving.

The professionals have a strong expressive communication talent with their clients. Aesthetic experiences include expressive properties and a focus on the different qualities of the art and experience of the art (Carroll, 2012). These talents described as coming from experience in art are the same as the skills and qualities the professionals describe.

According to Sager (2015) this participation and exchange of communication in the aesthetic experience can result in spiritual transformation. The professionals discuss the use of spirituality. The professionals recognize people as spiritual beings, they consider this God's work, and using art as therapy gave the professionals more spiritual connection when working on problems, which can include communication.

Trauma

Time influences growth (Park & Murch, 1996). Time plays a factor in a few ways. The professionals express how they take action quickly, but they also work in increments, step-by-step with clients which as the participants explained, can take many years. However, there is success; incremental success. Time is also a factor in how long it takes for these influences from trauma on problem solving to take place. There is a process.

Trauma can add emotion and texture to communication (Richman, 2013). The professionals use a great deal of emotion. Emotional expressiveness, self-disclosure, connected relationships, and philosophy of life are changed by trauma (Tedeschi &

Calhoun, 1995). Emotional expressiveness was described to have derived from art and trauma leading to a better understanding of emotions, how to connect emotionally, the range of emotion expression to communication expands, etc. These are all found to benefit the professionals.

Action was not discussed at length in the results, but was found to be a strong category that related to the literature. Settlers in Gaza were studied because of the terrorist attacks, and it was found that PTG (post-traumatic growth) occurs when action is taken, which is a positive adaptation (Hall et al., 2007). Additionally, the quality of being willing and the ability to take action when solving problems during trauma leads to success (Tedeschi & Calhoun, 1995). The professionals are very action oriented. They never run from problems, they fight for what's right and they fight for what the client wants, which could mean their problem-solving skill of action is related to their PTG.

It was also found that people going through trauma allow influence from others for support (Tedeschi & Calhoun, 1995). This could reflect on how the professionals allow influence from resources and networking, influences from past experiences, mentors, and the clients by giving them a voice and working as a team.

Strickland (1989) writes that those people who are creative and able to experience more growth from trauma are also "able to let go of conventional approaches to problems and reconstruct their situation; able to bring order out of chaos; and having a tendency to act upon their environment while regulating behavior within limits" (p.88). The professionals let go of cultural norms and think outside of the box, fight laws, take action, but also do things in small steps for incremental success. Regulating their behavior relates

to letting go, taking time to reflect, separating themselves from the situation, and focusing on the client.

Researcher Perceptions

The researcher compared the participant's levels of arts, trauma, qualities from the interview results, and qualities she experienced when interviewing the respondents and found some themes that should be noted and considered for future research. It seemed as if the more trauma and arts experience a participant had, the more flamboyant personality they had. It became easy to spot the participants when recruiting just by looking for the flamboyant type of personality, such as being freer with their communication and expression or the fact that the professionals do not follow social norms and do what they feel. All of the participants were inspiring to talk with and passionate about their work. The researcher learned something about herself and her life in almost every interview that could be used in personal or professional applications.

The people with more severe trauma, chronic struggling, and arts experience, had more developed ideas and awareness of their skills and perspectives developed from arts and trauma with application use within their job. The participants that had trauma with less severity and or less chronic struggling appeared as though they used the skills found from this study, but maybe to a lesser degree. In this case, the application and description of the connections with trauma and art and problem solving were less clear or in depth.

The participants who had less education, arts experience, and trauma, were less consciously aware of how their arts and trauma affected them or how they could be using skills from trauma. The researcher had to ask more questions in the interview to discover their answers to the original question with these participants because they were not

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immediately aware and conscious of all their connections to the arts, trauma, and problem solving. They needed more time to ponder. However, there were still skills and connections found after talking with them; they were just not as clear and developed as those with more trauma, arts, and education in their background.

It was also noted that the participants with more formula like education on problem solving (some participants would initially recite the formula their education had them memorize, not necessarily the qualities they revealed later on in the interview) relating to their specific job such as counseling, gave in depth responses, but did not have quite as much depth and variety of skills as others. The researcher would liken this to Dewey (1910) and how education can stifle the creativity. In this case, it made them a little more rigid than others. None of the participants had a real formula for problem solving, but these participants did not have as large of a big picture perspective, or depth of emotion, and a bit more of a formula to their approach when compared to the other participants. However, they still use the skills found with the other participants relating to trauma, arts, and problem solving.

The participants that had less time between the end of their trauma and the interview for this research had more negative things to say about the trauma and what results from it. Their list of skills and relations to problem solving was also less developed or had less depth to it resulting in less connections and skills consciously identifiable.

It was also noted that the type of trauma can impact the skills resulting, such as love, and its impact on problem solving. Kim had very negative experiences with love in her life from a young age, in addition to more than one trauma that impacted this quality

in her life. Kim described and identified using only a dash of nurturing and love and then sends clients on their way and described almost a very cold relationship after that dash of nurturing. However, from the description of everything else, this person obviously loves and showed love in her actions towards the clients. However, it could mean that she has less access to this skill developed from the trauma and arts because of her types of trauma as one of her traumas occurred at age three.

The skills, qualities and methods used by the professionals were found to take different amounts of time to develop depending on the participant. Most participants said it took many years to notice the how the skills from trauma and arts reflected on problem solving. However, there was one particular participant, John, who discussed how he was a quick learner and that impacted his speed of progression.

<div align="center">**Limitations**</div>

Some of the limitations included the many differences between the participants. There were some participants who had only been in their professional position for a couple of years (but had previously related positions however), and one participant who is retired from their job. This also means there was a wide range in ages. The participants also experienced their traumas at different ages and stages and life, the trauma type varied, and the space between the trauma and the time of interview all varied. Everyone who experiences adversity experiences it in different levels (Jacobsen, 2006), and all of the participants had very different traumas that were experienced and interpreted as different levels of trauma. The researcher believes that although these can be considered limitations, all these differences between participants gives this study more credibility because of the similarities between all of the participant's results.

The accumulated time after trauma affects the results of the assessment (Park & Murch (1996). Park and Murch (1996) explain that they think there needs to be at least a year. The researcher required the participants to have two years. It was very obvious which participants just made that mark and which participants had more time to grow and assess and discover talents that were developed and how to use them with problem solving.

One of the participants experienced their trauma two years prior to the interview, but after interviewing, found that their trauma could have been considered partially recurring for at least one of those years. This means they did not have a full two years to recover before participating in this study which means their perspective did not have enough time to be as positive as others or they were not as aware of what developed from their trauma and arts. However, this participant still gave a great deal of information that applied and was similar to the other participants. A second participant had the exact two years and it was clear that the interview did not yield quite as much depth as at least eight of the other participants, but it was still comparable.

The other limitation to note in this study is how the participants rated their trauma and arts experience. They rated their experiences themselves. This could really make the definition of what constitutes severe trauma quite varied. However, the most important thing was that the participants have experienced trauma with chronic struggling, which includes all levels of trauma.

Implications

In a world where there are many black and white perspectives and hard and fast rules, these professionals use a problem-solving approach with empathy, love, and

judgment free perspectives. The professionals acknowledged how their approach was very different from their colleagues' approaches. The results for this study contribute to the fields of health and education offering a different perspective and approach to problem solving. The results from this study show how the positive qualities and skills that come from arts and trauma offer a new perspective, but also show necessary qualities and skills that anyone in health and education can practice and use in their job. This study shows qualities, skills, and perspectives to use and develop to create a successful approach to problem solving that all professionals can work on.

Additionally, this research shows how important it is for professionals to start or continue an artistic hobby and arts experiences and use art as healing. Many professionals may not be able to experience trauma with chronic struggling, but this study shows the qualities that can be developed, honed, and practiced in problem solving to make a difference. This also allows those who may be struggling with trauma to know that there is an impact that it can make on their career in health and education.

Recommendations for Future Research

This study focused on health and education with a broad range of arts and trauma with chronic struggling experiences. Research could be conducted to further explore the researcher perceptions to discover how much the themes of differences between the participants, such as education level affect their problem-solving approach. Research could be furthered by focusing on specific types of jobs and the problem-solving processes, instead of just the professionals within the health and education fields. This could give a more detailed account as to how to use and apply these skills and qualities so that professionals can more effectively implement the techniques. Further studies should

be conducted to better identify how problem-solving professionals implement all of these techniques. More research could also be conducted with a more specialized focus on a specific level of arts and trauma to learn at what level of arts training and or trauma experience that these skills begin to be developed. More research could be conducted to make the trauma and arts levels easier to categorize to determine how much of a difference the kinds or levels of trauma affect the results. Research could be conducted on how this way of problem solving compares to other techniques and the success rate to show how successful this way of problem solving really is.

It would also be important to study professionals who start an artistic hobby and their progress developing the perspectives discussed in this study. And lastly, it would be important to study a group of people outside and inside the health and education fields who try to learn and develop these skills and implement them into their problem solving, to determine how successful learning and implementing those skills and qualities without having experienced the trauma, for example.

Conclusions

Most of the arts and trauma skills and qualities from the literature listed from Table 1, Table 2, and Table 3 were found in the results. However, it is very clear that most of the literature described just a small portion of what these professionals can do and the skills, qualities, and methods of seeing that they have at their fingertips. The arts have problem solving involved, and the trauma experiences include problem solving.

Problem-solving professionals use skills from arts and trauma to approach problems. This research study reveals a new non-formulary way of problem solving that could be used in any health and education field of work. It is not just creative, artistic, or

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logical, but includes many different skills, qualities, and methods of seeing revealing a deeper more connected approach to working with clients/patients/students on problems.

This research also acts as a guide for those experiencing trauma to know how to begin developing skills that will help them and make a positive experience come from trauma. This research also acts as a guide to show how important using art as healing can be. Using art as healing has a direct effect on another level for trauma, art, and problem solving. The art and the trauma both help develop some of the same skills, but act as a catalyst to build on each other. What an amazing research study it would be to discover the results of studying other professionals in health and education who have not previously experienced arts and trauma, and begin to help them learn the skills culled from this research and consider the use of art in their problem solving approach.

APPENDIX

APPENDIX A

Informed Consent Email

Hello,

      I am a doctoral student at the University of North Dakota in the department of Teaching and Learning. I am interested in studying professionals in the education and health fields, are in a position to be a resource for problem solving, self identify as an artist, and have experience in trauma with chronic struggling. I would like to invite you to participate in a research study if you meet the criteria. You are under no obligation to participate, and if you choose to participate you can withdraw at any time. If you choose to participate I would like to interview you for up to two hours, with the option of two, one-hour interviews. I have attached a consent form to this email and would be happy to answer any questions you have about participation in the research. Please contact me via email at chanel.myers@ndus.edu or via phone at 218-207-8135 if you have any questions. Thank you for your time.

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